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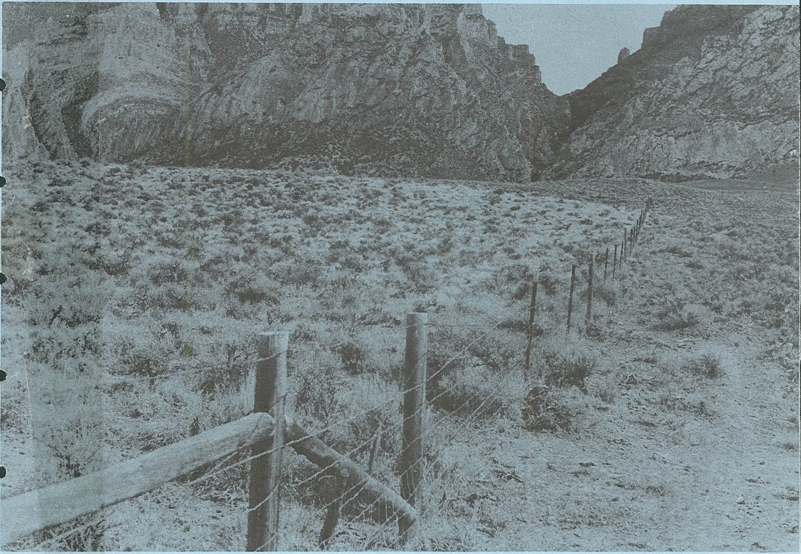

PHENOLOGY AND PRODUCTION STUDIES ON SEMI-ARID SHRUB TYPES

SUBMITTED BY WYOMING AGRICULTURAL EXPERIMENT STATION

DECEMBER 1975

COVER: The Horse Creek exclosure was established in 1955. It is located in the Big Horn Basin north of Shell, Wyoming on the sagebrush-grass rangelands immediately west of the Big Horn Mountains. There are three vegetation types inside the exclosure: a. _Artemisia tridentata-Agropyron smithii_ on the heavier soils of the lower elevations; b. _Artemisia tridentata-Agropyron spicatum_ on the sandier, lighter soils of the slopes; and c. _Artemisia nova-Agropyron spicatum_ on the rocky slopes. The area is utilized by cattle in the summer, by a resident deer herd, of about 40 animals, year round, and elk in the winter. Studies of intensive quantified plant phenology, site environmental characteristics, and forage production are being carried out at the exclosure. The cooperators are the Bureau of Land Management and the University of Wyoming.

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PHENOLOGY AND PRODUCTION STUDIES ON SEMI-ARID SHRUB TYPES[1]

1974 ANNUAL PROGRESS REPORT

BY

H. G. Fisser and L. H. Kleinman[2]

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[1] Published with the approval of the Director, Wyoming Agricultural Experiment Station, as Scientific Report No. 729.

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SECTION I

PHENOLOGY STUDY

1974

Introduction

Phenological study of important plant species in terms of productivity and microenvironmental variations will provide information that can be used to increase the efficiency of Bureau decision making with respect to management alternatives and disposition of natural resource areas.

Phenology studies of important shrub and grass species will provide detailed biological information related to specific changes in environmental characteristics such as time, duration, temperature, and movement. Very little detailed phenology and productivity information is available for arid land species of the western United States. Basic scientific knowledge and more precise information related to the Bureau's multiple resource management techniques will be enhanced by this phenology study.

Artemisia tridentata, Artemisia nova, Agropyron smithii, and Agropyron spicatum are the major shrub and grass species in the intermountain region on semi-arid, low elevation grazing ranges of public land. These species are especially important in the semi-arid regions of the western half of Wyoming from the Montana border on the north and the Utah and Colorado borders on the south. Their importance in adjacent states is equally significant. The ecological divergence of these four species is very great. They are found from high elevations to very low elevations, and from mesic to xeric situations. Therefore, these four species, in the development of the cooperative research program between the Bureau of Land Management and the University of Wyoming, were selected for intensive studies; to determine interrelationships of phenology, production, environment, and utilization. These kinds of data are of major importance to the BLM for development of efficient and sound resource management decisions.

Intensive phenological studies were located on 12 selected exclosure areas. First level evaluation areas are: Demer exclosure, Farson exclosure, Horse Creek exclosure, Shoshoni Ant #7 exclosure, and Sweetwater exclosure. Second level evaluation areas are: Bud Kimball exclosure, Cedar Mountain exclosure, Cumberland #3 exclosure, Mesa Antelope exclosure, Owl Draw exclosure, Red Wash #2 exclosure, and Upper Gov't Draw exclosure.

Phenophase descriptions and stages with numerical scales were set up for four specific plant species; *Agropyron smithii*, *A. spicatum*, *Artemisia nova*, and *A. tridentata*, plus one phenological inventory for all plant species. Seasonal development (March-December) was recorded for 100 plant species in 12 exclosure areas. Individual plants of the four principle species in each of the 12 selected exclosure areas were permanently located for repeated observation.

Plans for 1975 call for a continuation of data collection. Criteria for environmental data will be established, and the data collected. There will be continued revision and sophistication of present numerical descriptions of plant growth characters. Statistical and computer analysis of the several environmental factors, productivity and plant growth will be devised and implemented. Soil characteristics of each study site will be included in the analyses as variables to determine their relationships to the phenodynamics of the involved plants.

Objectives

The objectives of the study are to determine:

(1) the relationship of phenodynamics with vegetation production and environmental data;

(2) relationships of phenodynamics and environmental characteristics to grazing and management procedures.

Methods and Procedures

Twenty individual plants of each of the four principle species were permanently located along a 100 foot line in 12 exclosures. Every 5 ft. on the line, directions along and from the line for the closest plant were recorded.

Phenological measurements of Artemisia nova and A. tridentata included plant size, age, vegetative stages of growth with twig length, and reproductive stages of flowering and seed ripening with seed stalk length. Phenological measurements of Agropyron smithii and A. spicatum included plant size, age, vegetative stages of growth with leaf width and height; reproductive stages with spike height, number of spikelets per seed head and seed head development.

Phenological stages and numerical scores for shrubs and forbs are:

1. = initial start of growth of the plant;
2. = early vegetative growth -- the new leaves are developing and elongating;
3. = immature vegetative growth -- the new twigs are elongating;
4. = full vegetative growth -- the leaves and twigs are fully developed;

5. = floral bud stage -- the first buds begin development to the initiation of bloom;
6. = early bloom -- includes the initiation of bloom to 10% bloom;
7. = mid bloom -- includes 10% to 75% of bloom;
8. = full bloom - includes 75% bloom to 100% bloom;
9. = late bloom -- the flowers are drying and seeds are beginning to form;
10. = milk stage -- the seeds are soft and immature (not well formed);
11. = dough stage -- the seed is well formed but still soft;
12. = ripe seed -- the seed is mature and hard;
13. = past ripe -- the seed is ripe but not shattered, and reproductive parts of the plant (seed stalk, etc.) are mature, and are beginning to weather;
14. = mature vegetative -- the vegetative parts are beginning to brown to complete browning;
15. = mature reproductive -- the reproductive parts are curing (stem, leaf, and seeds are shattering);
16. = fall regreening -- and/or leaf shed;
17. = winter dormancy.

The plant age classes of shrubs are classified as:

1. = seedling;
2. = young and small;
3. = intermediate age and size;

4. = mature age and size;

5. = old and decadent.

The phenological stages and numerical scores for grasses are:

1. = first leaf stage -- from the appearance of first leaf to appearance of second leaf;

2. = second leaf stage -- from the appearance of second leaf to appearance of third leaf;

3. = third leaf stage -- from the appearance of the third leaf to appearance of the fourth leaf;

4. = fourth leaf development -- from the appearance of the fourth leaf to full leaf development;

5. = boat stage -- the seed stalk is elongating and the noticeable swelling of the seed head in boot.

6. = seed head emergence -- from the beginning of emergence of the seed head to the start of anthesis;

7. = early anthesis -- from initiation of anthesis to 10% of florets in bloom;

8. = mid anthesis -- from 10% of florets in bloom to 75% of florets in bloom;

9. = full anthesis -- 75% and more of the florets in bloom;

10. = milk stage -- the seed is soft and immature (not well formed);

11. = dough stage -- the seed is well formed but still soft;

12. = ripe seed -- the seed is well formed and hard;

13. = past ripe -- the reproductive parts begin to weather;

14. = vegetative parts browning;

15. = reproductive parts curing -- stems, leaves and seeds cast;

16. = fall regreening -- with adequate fall moisture and temperature there is fall regrowth;

17. = winter dormancy.

The maturity of Agropyron spicatum clumps are classified as: (a) seedling, (b) young, (c) intermediate, (d) mature, and (e) old. Each maturity classification can then be designated as: (a) sparse, (b) intermediate, (c) dense, and (d) decadant.

Results

An alphabetical listing of each study exclosure, the county where located and the principle phenology species is shown in Table I. Table II is an alphabetical listing of 100 species found in the 12 phenology study exclosures. A phenological inventory of all species in each study exclosure is shown in Table III. Table IV is a listing of the permanently located plants of the four principle species in each study exclosure. The phenological development averages for the four principle species in each of the five first level of evaluation study exclosures are shown in Figure 1 for the years 1973 and 1974. Table V is a list of 17 independent and two independent variables used in the step-wise multiple regression analysis. Figure 2 is the correlation matrix of all independent and dependent variables studied. Table VI is the result of the step-wise selection process.

It is noted that intraspecific plant growth varies in times and amounts from year to year and from location to location. However, variations in times and amounts of plant growth within the same species were observed during the same year and in the same study exclosures.

Along the permanently located 100 ft. lines for bluebunch wheatgrass at the Horsecreek exclosure and western wheatgrass at the Sweetwater exclosure phenophase scores varied more than expected. There were distinct elevation changes from one end of the line to the other. Certainly exposure and slope affect soil temperature and it was observed that phenophase scores changed with as little as .5°C change in soil temperature at 15" depth. Percent soil moisture differed along the line also, but changes were not so direct as the changes in soil temperature.

Bloom times varied between 1973 and 1974 more than did seed dissemination. As seen in Figure 1 seed dissemination seemed to occur about the same time each year.

Preliminary statistical analysis was completed on plant growth as it changes with and because of different environmental and productivity factors.

Seventeen independent variables (environmental factors and annual production values) and two dependent variables (reproductive and vegetative phenophases) were analysed by multiple regression analysis procedures. Simple relationships between plant growth and environmental and productivity characteristics were found to be inadequate, therefore a stepwise selection method of isolating and quantifying those factors in which there may be a cause and effect relationship with plant growth was used. Table VI gives the results of the step-wise selection process.

Because of the extensive topographical and ecological divergence of all the sagebrush-grass areas in Wyoming, one environmental or productivity factor that is significant in one area may not be significant in another. The same will be true between different species, therefore only those variables which help to explain the greatest amount of variation in plant growth are mentioned. They were: soil temperature at 15" depth, percentage soil moisture at 6-12" depth, percentage soil moisture the previous month at 0-6" depth, current air temperature, and minimum air temperature since the last sampling date.

Having only one year's environmental data available leaves the validity of these relationships open to question. Therefore, plans for 1975 call for further and more extensive investigation. The results of the analysis appear to be ecologically sound; as was expected, soil temperature and soil moisture were the more important driving factors in the phenology of the big sagebrush, black sagebrush, western wheatgrass, and bluebunch wheatgrass complexes.

TABLE I. Alphabetical listing of study areas, the county where each occurs, and the principle species.

Exclosure Name	County	Principle Species
Bud Kimball	Washakie	Agropyron smithii Artemisia tridentata
Cedar Mountain	Sweetwater	Agropyron spicatum Artemisia tridentata
Cumberland #3	Lincoln	Agropyron smithii Agropyron spicatum Artemisia tridentata
Demer	Washakie	Agropyron smithii Agropyron spicatum Artemisia tridentata
Farson	Sweetwater	Agropyron smithii Artemisia tridentata
Horse Creek	Big Horn	Agropyron smithii Agropyron spicatum Artemisia nova Artemisia tridentata
Mesa Antelope	Sublette	Agropyron smithii Artemisia tridentata
Owl Draw	Natrona	Agropyron smithii Agropyron spicatum Artemisia nova Artemisia tridentata
Red Wash #2	Sweetwater	Agropyron smithii Agropyron spicatum Artemisia tridentata
Shoshone Ant #7	Fremont	Agropyron smithii Artemisia tridentata
Sweetwater	Fremont	Agropyron smithii Artemisia nova Artemisia tridentata
Upper Gov't. Draw	Fremont	Agropyron smithii Artemisia tridentata

TABLE II. LIST OF PLANT NAMES WHICH OCCURRED IN PHENOLOGY STUDY AREAS.

Code	Genus--Species	Common Name	Life Form	Longevity
AGCR	Agropyron cristatum	Crested wheatgrass	Grass	Perennial
AGGL	Agoseris glauca	Pale agoseris	Forb	Perennial
AGSM	Agropyron smithii	Western wheatgrass	Grass	Perennial
AGSP	Agropyron spicatum	Bluebunch wheatgrass	Grass	Perennial
ALTE	Allium textile	Textile onion	Forb	Perennial
ANDI	Antennaria dimorpha	Low pussytoes	Forb	Perennial
ANRO	Antennaria rosea	Rose pussytoes	Forb	Perennial
ARFR	Artemisia frigida	Fringed sagewort	Half-shrub	Perennial
ARHO	Arenaria hookeri	Hooker sandwort	Forb	Perennial
ARHO^2	Arabis holboellii	Holboell rockcress	Forb	Perennial
ARLO	Aristida longiseta	Red three-awn	Grass	Perennial
ARNO	Artemisia nova	Black sagebrush	Shrub	Perennial
ARSP	Artemisia spinescens	Bud sagebrush	Half-shrub	Perennial
ARTR	Artemisia tridentata	Big sagebrush	Shrub	Perennial
AST	Astragalus spp.	Milkvetch	Forb	Perennial
ASCA	Aster canescens	Hoary aster	Forb	Perennial
ASCI	Astragalus cibarius	Silky milkvetch	Forb	Perennial
ASDI	Astragalus diversifolius	Meadow milkvetch	Forb	Perennial
ASPU	Astragalus purshii	Pursh loco	Forb	Perennial
ASMO	Astragalus montanus		Forb	Perennial
ASSP	Astragalus spatulatus	Tufted milkvetch	Forb	Perennial
ATCO	Atriplex confertifolia	Shadscale saltbush	Shrub	Perennial
ATNU	Atriplex nuttallii	Nuttall saltbush	Half-shrub	Perennial
BOGR	Bouteloua gracilis	Blue grama	Grass	Perennial
BRCO	Bromus commutatus	Hairy chess	Grass	Annual
BRTE	Bromus tectorum	Cheatgrass	Grass	Annual
CAAN	Castilleja angustifolia	Narrowleaf Indian paintbrush	Forb	Perennial
CAEL	Carex eleocharis	Needleleaf sedge	Sedge	Perennial
CAFI	Carex filifolia	Threadleaf sedge	Sedge	Perennial
CANU	Calochortus nuttallii	Mariposa lily	Forb	Perennial
CAS	Castilleja spp.	Paintbrush	Forb	Perennial
CHDO	Chaenactis douglasii	Douglas dustymaiden	Forb	Perennial
CHFR	Chenopodium fremonti	Fremont goosefoot	Forb	Annual
CHNA	Chrysothamnus nauseosus	Rubber rabbitbrush	Shrub	Perennial
CHVI	Chrysothamnus viscidiflorus	Green rabbitbrush	Shrub	Perennial
CIR	Cirsium spp.	Thistle	Forb	Perennial
COPA	Comandra pallida	False toadflax	Forb	Perennial
CORA	Cordylanthus ramosus	Branched birdbeak	Forb	Perennial
CRBR	Cryptantha bradburiana	Miners candle	Forb	Perennial
CRFL	Cryptantha flavoculata	Roughseed cryptantha	Forb	Perennial
CRE	Crepis spp.	Hawksbeard	Forb	
DEGE	Delphinium geyeri	Plains larkspur	Forb	Perennial
DEPI	Descurainia pinnata	Pinnate tansymustard	Forb	Annual
ERAS	Erysimum aspermum	Plains wallflower	Forb	Perennial
ERCA	Erigeron canadensis	Horseweed fleabane	Forb	Annual
ERMI	Eriogonum microthecum	Slenderbush wildbuckwheat	Forb	Perennial
EROV	Eriogonum ovalifolium	Cushion wildbuckwheat	Forb	Perennial
ERPU	Erigeron pumilus	Low fleabane	Forb	Perennial
ERSU	Eriogonum subalpinum	Subalpine wildbuckwheat	Forb	Perennial
ERI	Erigeron spp.	Fleabane	Forb	Perennial
ERI^2		Wildbuckwheat	Forb	

Table II (Continued)

Code	Genus--Species	Common Name	Life Form	Longevity
EULA	Eurotia lanata	Winterfat	Half-shrub	Perennial
GIAG	Gilia aggregata	Skyrocket gilia	Forb	Perennial
GRSP	Grayia spinosa	Spiny hopsage	Shrub	Perennial
GUSA	Gutierrezia sarothrae	Broom snakeweed	Half-shrub	Perennial
HAAC	Haplopappus acaulis	Stemless goldenweed	Forb	Perennial
JUOS	Juniperus osteosperma	Utah juniper	Tree	Perennial
JUSC	Juniperus scopulorum	Rockymountain juniper	Tree	Perennial
KOAM	Kochia americana	Greenmolly summercypress	Shrub	Perennial
KOCR	Koeleria cristata	June grass	Grass	Perennial
LARE	Lappula redowskii	Stickseed	Forb	Annual
LEAL	Lesquerella alpina	Alkaline baldderpod	Forb	Perennial
LELU	Lesquerella ludoviciana	Foothill bladderpod	Forb	Perennial
LEPU	Leptodactylon pungens	Granite gilia	Forb	Perennial
LERE	Lewisia rediviva	Bitterroot	Forb	Perennial
MACA	Machaeranthera canescens	Hoary aster	Forb	Perennial
MAGR	Machaeranthera grindelodes	Woody aster	Forb	Perennial
MELO	Mertenca longiflora	Small bluebells	Forb	Perennial
OPPO	Opuntia polyacantha	Plains pricklypear	Forb	Perennial
ORFA	Orobanche fasiculata	Tufted broomrape	Saprophyte	
ORHY	Oryzopsis hymenoides	Indian ricegrass	Grass	Perennial
OXLA	Oxytropis lambertii	Lambert loco	Forb	Perennial
PECL	Penstemon cleburnei	Larchleaf penstemon	Forb	Perennial
PEFR	Penstemon fremontii	Fremont penstemon	Forb	Perennial
PEN	Penstemon spp.		Forb	Perennial
PHHO	Phlox hoodii	Hood's phlox	Forb	Perennial
PHLO	Phlox longifolia	Long-leaf phlox	Forb	Perennial
PLPA	Plantago patagonica	Wooly indianwheat	Forb	Annual
PLSP	Plantago spinescens	Spiny indianwheat	Forb	Annual
POFE	Poa fendleriana	Muttongrass	Grass	Perennial
POSE	Poa secunda	Sandberg bluegrass	Grass	Perennial
PSTE	Psoralea tenuiflora	Slimflower scurfpea	Forb	Annual
RHTR	Rhus trilobata	Skunkbush sumac	Shrub	Perennial
SAKA	Salsola kali	Russian thistle	Forb	Annual
SIHY	Sitanion hystrix	Squirreltail bottlebrush	Grass	Perennial
SILI	Sisymbrium linifolium	Tumbleweed	Forb	Annual
SPCO	Sphaeralcea coccinea	Scarlet globemallow	Forb	Perennial
STCO	Stipa comata	Needle-and-thread	Grass	Perennial
SYOC	Symphoricarpos occidentalis	Western snowberry	Shrub	Perennial
TECA	Tetradymia canescens	Gray horsebrush	Shrub	Perennial
TESP	Tetradymia spinosa	Spiny horsebrush	Shrub	Perennial
TOIN	Townsendia incana	Hoary townsendia	Forb	Perennial
TRI	Trifolium spp.	Clover	Forb	
TRDU	Tragopogon dubius	Salsify	Forb	Perennial
VIAM	Vicia americana	American vetch	Forb	Perennial
VINU	Viola nuttallii	Nuttall violet	Forb	Perennial
VIVA	Viola vallicola	Nuttall violet	Forb	Perennial
VUOC	Vulpia octoflora	Common sixweeksgrass	Grass	Annual
YUGL	Yucca glauca	Small soapweed	Forb	Perennial
ZYVE	Zygadenus venanosus	Death camas	Forb	Perennial

Figure 1. The average developmental events for *Agropyron smithii*, *A. spicatum*, *Artemisia nova*, and *A. tridentata* for 1973 and 1974.

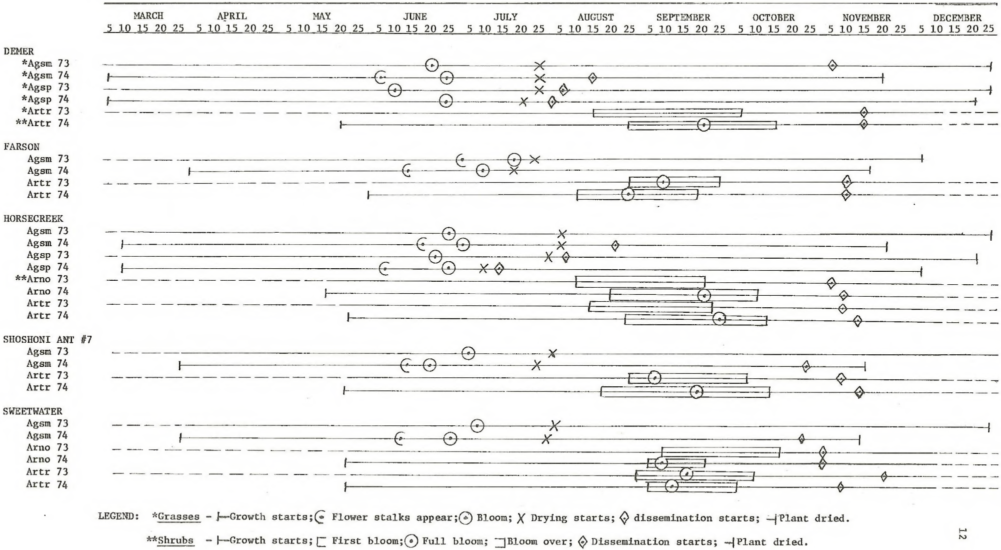

TABLE III.

PHENOLOGICAL INVENTORY Study Area Bud Kimball 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	26 April		21 May		4 June		18 June		11 July		30 July		20 Sep									
1. AGSM	3.0	--	4.0	5.3	4.2	5.8	4.3	7.0	4.9	11.0	14.5	13.5	14.9	15.7								
2. ALTE	--	--	--	--	--	--	--	--	14.9	15.9	14.9	15.9	14.9	15.9								
3. ARHO2	--	--	--	--	--	--	14.0	10.5	14.5	15.5	14.9	15.9	--	--								
4. ARTR	14.8	15.9	1.0	--	3.2	--	3.3	5.2	3.4	5.4	3.5	5.5	4.5	8.0								
5. BRCO	3.5	5.2	4.0	5.5	4.3	6.2	4.8	9.5	14.7	15.3	14.9	15.7	14.9	15.9								
6. BRTE	3.8	5.5	4.3	6.0	4.5	6.6	14.0	10.0	14.8	15.5	14.9	15.9	14.9	15.9								
7. CAS	--	--	3.2	--	3.5	7.0	--	--	4.5	9.0	14.0	15.5	14.9	15.9								
8. CRE	--	--	3.0	--	3.6	5.3	4.0	7.3	14.5	15.6	--	--	--	--								
9. DEPI	--	--	--	--	--	--	4.0	7.0	14.9	15.9	--	--	--	--								
10. KOCR	3.0	--	4.2	6.3	4.4	6.7	4.6	8.0	14.0	15.2	14.4	15.4	14.9	15.9								
11. LARE	--	--	--	--	3.7	7.0	4.0	8.0	4.8	13.0	14.9	15.5	14.9	15.9								
12. LERE	--	--	--	--	3.5	6.2	4.5	7.0	--	--	14.9	15.9	14.9	15.9								
13. MAGR	--	--	--	--	3.3	6.2	3.5	9.2	--	--	14.9	15.9	--	--								
14. MATA	--	--	2.0	--	4.5	7.0	--	--	14.9	15.9	14.9	15.9	--	--								
15. OPPO	2.5	--	3.0	--	3.3	5.0	3.5	7.0	14.0	11.7	14.2	12.5	14.4	15.9								
16. PHHO	3.0	6.0	3.2	8.0	3.5	9.0	4.3	10.0	14.8	15.9	14.8	15.9	14.9	15.9								
17. PLSP	3.0	--	3.5	5.5	4.7	7.0	14.5	12.3	14.9	15.5	14.9	15.7	14.9	15.9								
18. POSE	4.0	5.2	4.3	6.5	4.4	8.0	14.2	11.5	14.9	15.8	14.9	15.6	14.9	15.9								
19. SIHY	3.0	--	4.3	5.2	4.5	5.5	4.5	6.0	4.5	7.2	14.2	15.1	14.8	15.3								
20. SPCO	2.0	--	2.7	--	3.0	--	3.5	6.8	4.8	12.0	14.2	15.5	14.9	15.9								
21. STCO	3.0	--	4.0	--	4.3	5.0	4.5	7.0	14.0	11.5	14.5	15.0	14.9	15.9								
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Cedar Mountain 1974 Type-site ARTR - AGSP

SPECIES IDENTIFICATION		VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
		11 Mar		24 May		13 June		21 June		27 Dec													
1.	AGCR	2.5	--	4.3	5.0	4.4	6.7	4.6	10.5	17.0													
2.	AGSP	17.0	17.0	4.3	5.0	4.4	6.6	14.1	8.3	17.0													
3.	$ARHO_2$	14.9	15.9	--	--	3.7	11.0	14.0	11.2	17.0													
4.	ARSP	17.0	17.0	3.2	5.0	3.4	5.3	14.2	13.5	17.0													
5.	ARTR	14.8	15.9	1.5	--	3.3	5.2	3.7	5.3	15.9													
6.	ASPU	17.0	17.0	3.5	7.2	3.7	13.1	14.5	15.5	17.0													
7.	ATCO	17.0	17.0	2.5	--	3.3	5.2	4.2	7.0	15.9													
8.	ATNU	14.8	15.9	3.0	5.0	3.4	9.7	4.5	11.8	15.9													
9.	CHVI	17.0	17.0	3.0	--	3.3	5.1	3.7	5.2	17.0													
10.	CRE	--	--	--	--	4.5	9.0	14.1	11.2	17.0													
11.	ERI	--	--	--	--	3.7	7.5	4.3	9.1	17.0													
12.	EROV	17.0	17.0	3.3	7.2	3.8	9.0	14.3	10.0	15.9													
13.	EULA	17.0	17.0	2.0	--	3.3	--	14.1	--	15.9													
14.	HAAC	17.0	17.0	3.5	6.9	3.6	9.2	4.2	15.0	15.9													
15.	KOAM	2.1	--	--	--	3.4	--	3.6	--	--													
16.	OPPO	14.8	15.9	3.0	--	3.3	5.4	3.8	5.8	15.9													
17.	ORHY	2.0	--	--	--	--	--	4.7	9.3	17.0													
18.	PHHO	1.2	--	3.5	7.6	3.7	10.0	4.8	15.9	17.0													
19.	PHLO	2.5	--	3.5	7.3	3.6	--	--	--	17.0													
20.	POSE	2.2	--	4.5	6.5	4.5	8.0	14.1	11.8	17.0													
21.	SIHY	1.2	--	4.2	--	4.4	7.1	14.5	11.7	17.0													
22.	SILI	14.9	15.9	3.5	7.2	--	--	--	--	--													

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Cedar Mountain 1974 Type-site ARTR - AGSP

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	11 Mar		24 May		13 June		21 June		27 Dec													
1. SPCO	17.0	17.0	3.3	--	3.6	5.3	4.0	9.3	17.0	17.0												
2. TESP	17.0	17.0	3.2	5.0	3.5	5.2	3.8	5.7	17.0	17.0												
3.																						
4.																						
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						
11.																						
12.																						
13.																						
14.																						
15.																						
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Cumberland #3 1974 Type-site ARTR - AGSM - AGSP

SPECIES IDENTIFICATION		VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
		12 March		24 May		6 June		20 June		15 July													
1.	AGGL	1.5	--	3.5	--	3.6	7.0	17.0	17.0	17.0	17.0												
2.	AGSM	17.0	17.0	3.6	--	4.2	--	4.3	7.3	14.0	11.5												
3.	AGSP	17.0	17.0	4.2	5.0	4.3	6.2	4.6	7.3	14.2	12.0												
4.	ANDI	--	--	--	--	--	--	4.5	15.1	4.7	12.0												
5.	ANRO	--	--	--	--	--	--	3.3	15.0	4.5	15.9												
6.	ARHO	--	--	3.5	6.0 10.0	3.8	10.5	4.5	9.0 11.0	14.5	15.7												
7.	ARTR	14.8	15.9	1.7	--	3.3	5.1	3.4	5.3	3.6	5.5												
8.	ASCA	--	--	--	--	--	--	3.4	5.3	4.2	9.0												
9.	ASCI	--	--	3.5	7.2	3.6	8.0	4.3	13.7	14.7	15.9												
10.	ASDI	--	--	3.5	7.2	3.6	8.0	3.8	8.5	14.5	15.9												
11.	AST	--	--	--	--	--	--	4.0	9.8	4.5	12.0												
12.	CAST	1.5	--	3.0	5.0	3.3	5.3	3.5	5.8	--	--												
13.	CHVI	17.0	17.0	3.0	--	3.3	--	3.4	5.1	4.5	8.0												
14.	COPA	14.9	15.9	--	--	2.5	5.3	4.0	9.0	4.5	13.0												
15.	CORA	14.9	15.9	14.9	15.9	1.5	--	3.2	--	4.5	--												
16.	CRE	14.9	15.9	--	--	2.1	5.0	4.0	5.9	4.9	9.0												
17.	DEPI	--	--	--	--	--	--	14.9	11.0 15.9	14.9	15.9												
18.	ERMI	17.0	17.0	3.0	5.0	3.2	5.0	3.3	5.2	4.3	8.5												
19.	EROV	1.5	--	3.5	6.3	4.0	8.0	--	--	4.2	15.9												
20.	ERSU	--	--	--	--	--	--	3.5	6.3	14.1	11.7												
21.	MELO	17.0	17.0	3.5	7.1	--	--	--	--	14.9	15.9												
22.	OPPO	14.8	15.9	3.0	--	3.2	--	3.4	5.2	4.0	7.0												

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Cumberland #3 1974 Type-site ARTR - AGSM - AGSP

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	12 Mar		24 May		6 June		20 June		15 July													
1. ORHY	1.2	--	--	--	--	--	4.6	7.3	--	--												
2. PELA	17.0	17.0	--	--	--	--	4.0	9.8	14.2	15.2												
3. PHHO	2.5	--	3.5	8.1	3.6	9.0	3.7	9.1	4.5	13.0												
4. PHLO	2.5	--	3.5	7.2	3.6	8.0	3.8	9.0	4.5	13.0												
5. POFE	2.5	--	4.5	6.6	4.6	7.0	4.7	10.5	14.5	15.6												
6. POSE	2.0	--	4.5	6.5	4.6	7.0	4.6	7.4	14.9	15.8												
7. SIHY	17.0	17.0	4.2	5.0	4.3	6.2	4.4	7.2	14.1	11.7												
8. STCO	--	--	--	--	--	--	4.3	6.8	14.2	12.0												
9. SYOC	17.0	17.0	2.0	--	--	--	4.0	--	4.5	--												
10. TECA	17.0	17.0	1.5	--	3.3	--	3.4	5.2	4.5	9.0												
11. TRI	--	--	3.5	6.8	--	--	3.6	15.5	14.0	15.9												
12. UMB	14.9	15.9	--	--	3.8	15.0	14.7	15.5	14.9	15.9												
13. VIVA	--	--	--	--	--	--	14.1	15.9	14.9	15.9												
14. ZYG	1.5	--	3.7	5.0	4.1	7.5	14.8	15.7	14.9	15.9												
15.																						
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Demer 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION		VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
		31 Jan		22 Feb		7 March		28 March		26 April		21 May		5 June		18 June		11 July		30 July		28 Aug	
1.	AGSM	17.0	17.0	17.0	17.0	1.1	--	2.2	--	3.2	--	4.3	5.5	4.3	6.0	4.3	7.1	14.2	11.2	14.7	13.5	14.8	15.5
2.	AGSP	17.0	17.0	17.0	17.0	1.2	--	2.3	--	3.1	--	4.4	5.6	4.4	6.3	4.5	7.1	14.3	11.4	14.6	15.1	14.8	15.5
3.	ARTR	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.1	--	3.0	--	3.3	5.2	3.4	5.4	3.5	5.5	4.0	5.8
4.	BOGR	17.0	17.0	17.0	17.0	17.0	17.0	1.0	17.0	3.0	--	3.3	--	3.7	4.3	4.3	5.8	4.8	10.0	14.2	15.1	14.6	15.5
5.	BRTE	14.9	15.9	2.0	--	2.1	--	3.3	--	4.0	--	4.5	6.5	4.5	7.0	14.2	11.2	14.9	15.8	14.9	15.9	14.9	15.9
6.	DEGE	17.0	17.0	17.0	17.0	17.0	17.0	2.2	17.0	3.5	--	3.5	6.7	4.5	7.3	14.2	12.0	14.9	15.9	14.9	15.9	14.9	15.9
7.	ERPU	17.0	17.0	17.0	17.0	17.0	17.0	2.0	17.0	2.7	--	3.0	5.8	3.7	6.5	4.0	11.0	4.2	15.5	4.5	15.9	14.0	15.9
8.	LARE	14.9	15.9	14.9	15.9	14.9	15.9	14.5	15.9	3.0	15.9	3.5	6.0	4.0	8.0	4.8	9.8	14.2	13.5	14.9	15.7	14.9	15.9
9.	OPPO	14.8	15.9	14.8	15.9	14.8	15.9	1.1	15.9	2.7	--	3.0	5.0	3.1	5.6	3.2	7.0	14.0	11.7	14.2	12.5	14.3	15.9
10.	PLSP	14.9	15.9	14.9	15.9	2.0	--	2.2	--	3.0	--	3.5	5.5	4.7	7.0	14.5	12.3	14.9	15.5	14.9	15.7	14.9	15.9
11.	POSE	17.0	17.0	17.0	17.0	1.7	--	3.0	--	4.0	--	4.5	6.2	4.6	7.5	14.2	11.5	14.9	15.8	14.9	15.6	14.9	15.9
12.	SIHY	17.0	17.0	17.0	17.0	1.7	--	2.3	--	3.3	--	4.5	5.6	4.5	6.0	4.5	7.2	14.2	15.1	14.8	15.3	14.8	15.8
13.	STCO	17.0	17.0	17.0	17.0	1.4	--	2.3	--	3.5	--	4.6	6.0	4.6	6.5	4.7	7.7	14.3	15.5	14.5	15.8	14.7	15.8
14.	VUOC	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.5	15.9	3.8	6.2	4.5	7.3	14.9	15.7	14.9	15.9	14.9	15.9	14.9	15.9
15.																							
16.																							
17.																							
18.																							
19.																							
20.																							
21.																							
22.																							

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Demer 1974 Type-site ARTR - AGS.

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	20 Sep		15 Oct		22 Nov		19 Dec															
1. AGSM	14.9	15.7	16.1	15.9	17.0	17.0	17.0	17.0														
2. AGSP	14.9	15.7	16.2	15.9	16.5	15.9	17.0	17.0														
3. ARTR	4.5	8.0	14.0	10.5	14.5	15.9	14.7	15.9														
4. BOGR	14.8	15.7	16.2	15.9	16.4	15.7	17.0	17.0														
5. BRTE	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9														
6. DEGE	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0														
7. ERPU	--	--	--	--	17.0	17.0	17.0	17.0														
8. LARE	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9														
9. OPPO	14.5	15.9	14.5	15.9	14.7	15.9	14.8	15.9														
10. PLSP	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9														
11. POSE	14.9	15.9	16.5	15.9	16.7	15.9	17.0	17.0														
12. SIHY	14.9	15.8	16.3	15.9	16.7	15.9	17.0	17.0														
13. STCO	14.8	15.9	16.2	15.9	16.5	15.9	17.0	17.0														
14. VUOC	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9														
15.																						
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Farson 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	2 Feb		30 Mar		27 April		23 May		6 June		20 June		15 July		24 Aug		21 Sep		17 Oct		15 Nov	
1. AGSM	17.0	17.0	1.1	--	2.9	--	3.4	--	3.9	5.0	4.3	6.4	14.1	9.7	14.7	13.5	14.8	15.5	14.9	15.9	17.0	17.0
2. ARHO	17.0	17.0	1.0	--	--	--	--	--	--	--	3.5	7.2	14.0	10.5	14.5	15.0	14.7	15.9	14.9	15.9	17.0	17.0
3. ARHO$_2$	--	--	--	--	--	--	--	--	--	--	14.3	10.0	--	--	14.0	15.9	14.9	15.9	14.9	15.9	14.7	15.9
4. ARTR	14.8	15.9	14.8	15.9	14.8	15.9	1.5	--	3.0	5.0	3.2	5.2	3.3	5.3	4.0	6.0	4.5	8.0	14.0	10.5	14.4	15.5
5. ASPU	17.0	17.0	2.0	--	3.2	--	3.3	--	4.0	9.0	14.1	11.5	14.3	15.9	14.7	15.9	14.9	15.9	17.0	17.0	17.0	17.0
6. ASSP	17.0	17.0	--	--	3.5	8.2	--	--	14.1	9.8	14.7	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9
7. ATCO	17.0	17.0	17.0	17.0	1.0	--	3.2	--	3.5	5.0	3.6	5.2	3.7	5.8	--	--	--	--	14.2	13.0	14.8	15.9
8. CAEL	--	--	17.0	17.0	--	--	4.2	8.5	4.5	13.0	14.1	13.3	14.3	15.5	14.9	15.9	17.0	17.0	17.0	17.0	17.0	17.0
9. CHFR	14.9	15.9	14.9	15.9	--	--	3.1	--	--	--	--	--	14.9	13.8	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9
10. CHVI	17.0	17.0	17.0	17.0	2.2	--	3.0	--	3.3	--	3.4	5.1	3.5	7.0	4.2	8.0	4.8	13.5	14.9	15.9	17.0	17.0
11. EROV	17.0	17.0	17.0	17.0	2.0	--	--	--	3.5	7.3	4.0	9.2	4.5	15.5	4.9	15.9	14.3	15.9	14.8	15.9	17.0	17.0
12. EULA	17.0	17.0	17.0	17.0	1.0	--	2.1	--	3.1	--	3.4	--	3.5	5.3	4.0	6.1	4.5	8.5	14.0	12.0	14.6	15.9
13. GRSP	17.0	17.0	17.0	17.0	--	--	3.1	--	3.2	--	4.1	5.1	4.3	5.7	--	--	--	--	14.9	13.0	14.9	15.5
14. HAAC	17.0	17.0	17.0	17.0	3.0	--	--	--	--	--	4.3	15.2	14.4	15.9	14.8	15.9	14.9	15.9	17.0	17.0	17.0	17.0
15. OPPO	14.8	15.9	14.8	15.9	1.0	--	2.5	--	3.0	5.0	3.3	5.1	3.5	9.0	4.8	15.0	14.3	15.9	14.6	15.9	14.7	15.9
16. ORHY	17.0	17.0	17.0	17.0	2.3	--	3.7	--	4.4	6.1	4.5	7.1	14.2	15.2	14.7	15.8	14.9	15.9	17.0	17.0	17.0	17.0
17. PECL	--	--	--	--	--	--	--	--	--	--	4.0	10.2	--	--	14.9	15.9	17.0	17.0	17.0	17.0	17.0	17.0
18. PHHO	17.0	17.0	1.0	--	3.2	5.5	3.5	6.2	3.6	9.0	3.7	9.5	14.8	15.9	14.9	15.9	17.0	17.0	17.0	17.0	17.0	17.0
19. POSE	17.0	17.0	17.0	17.0	3.0	--	--	--	4.7	7.8	14.2	10.5	14.9	15.3	14.9	15.9	17.0	17.0	17.0	17.0	17.0	17.0
20. SIHY	17.0	17.0	1.3	--	3.2	--	3.3	--	4.3	6.5	4.5	7.2	14.3	15.5	14.8	15.8	14.9	15.9	17.0	17.0	17.0	17.0
21. SILI	14.9	15.9	14.9	15.9	3.0	--	3.5	6.1	3.5	8.5	4.7	10.1	--	--	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9
22. SPCO	17.0	17.0	17.0	17.0	17.0	17.0	--	--	3.5	6.9	4.0	9.7	4.5	12.0	14.5	15.7	14.9	15.9	17.0	17.0	17.0	17.0
23. STCO	17.0	17.0	17.0	17.0	2.3	--	3.7	--	4.4	6.1	4.4	6.7	14.3	15.3	14.7	15.8	14.9	15.9	17.0	17.0	17.0	17.0

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Farson 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	20 Dec																					
1. AGSM	17.0	17.0																				
2. ARHO	17.0	17.0																				
3. $ARHO_2$	14.9	15.9																				
4. ARTR	14.7	15.9																				
5. ASPU	17.0	17.0																				
6. ASSP	17.0	17.0																				
7. ATCO	14.9	15.9																				
8. CAEL	17.0	17.0																				
9. CHFR	14.9	15.9																				
10. CHVI	17.0	17.0																				
11. EROV	17.0	17.0																				
12. EULA	14.9	15.9																				
13. GRSP	14.9	15.9																				
14. HAAC	17.0	17.0																				
15. OPPO	14.8	15.9																				
16. ORHY	17.0	17.0																				
17. PECL	17.0	17.0																				
18. PHHO	17.0	17.0																				
19. POSE	17.0	17.0																				
20. SIHY	17.0	17.0																				
21. SILI	14.9	15.9																				
22. SPCO	17.0	17.0																				
STCO	17.0	17.0																				

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Horse Creek 1974 Type-site ARNO - AGSP

SPECIES IDENTIFICATION	1 Feb		21 Feb		7 March		29 March		26 April		21 May		4 June		18 June		11 July		30 July		22 Aug	
	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
1. AGSP	17.0	17.0	17.0	17.0	1.2	--	2.2	--	3.8	--	4.3	--	4.4	6.6	4.5	7.1	14.2	15.3	14.7	15.8	14.8	15.9
2. ARLO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.2	--	3.0	--	3.2	--	4.2	10.0	14.2	13.5	14.4	15.5	14.5	15.7
3. ARNO	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.2	--	3.1	--	3.3	5.0	3.3	5.3	3.4	5.4	3.6	5.6	4.0	5.9
4. ARTR	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.1	--	3.2	--	3.3	5.3	3.4	5.4	3.5	5.5	4.0	5.8
5. ASPU	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	3.1	--	3.3	--	3.5	13.0	4.8	15.5	--	--	14.1	15.9	14.5	15.9
6. BRTE	14.9	15.9	14.9	15.9	2.2	--	3.1	--	3.5	--	4.2	6.5	4.3	7.2	14.2	11.2	14.9	15.8	14.9	15.9	14.9	15.9
7. CIR	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	3.2	5.0	3.0	--	3.5	--	--	--	4.5	10.0	--	--	--	--
8. CRBR	17.0	17.0	2.0	--	2.1	--	2.3	--	2.6	--	3.5	7.0	3.5	7.5	3.6	8.6	14.8	15.8	14.9	15.9	14.9	15.9
9. EULA	--	--	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	--	--	3.5	--	--	--	3.6	--	3.7	5.2	4.8	11.5
10. GACO	17.0	17.0	1.5	--	--	--	--	--	2.6	--	3.3	6.7	3.6	7.5	3.7	9.1	14.0	11.0	14.1	12.0	14.4	15.9
11. GUSA	17.0	17.0	1.0	--	2.1	--	2.3	--	2.4	--	3.3	--	3.5	--	3.6	5.0	4.0	5.3	4.2	5.8	4.2	6.0
12. HAAC	17.0	17.0	1.0	--	--	--	--	--	3.2	5.1	3.5	6.8	3.5	7.2	4.0	13.3	14.2	15.9	14.6	15.9	14.7	15.9
13. OPPO	14.8	15.9	--	--	--	--	--	--	1.0	--	3.0	5.1	3.2	6.5	3.3	7.0	--	--	14.0	12.5	14.2	15.5
14. ORHY	17.0	17.0	17.0	17.0	2.2	--	--	--	3.7	--	4.4	5.8	--	--	4.7	11.0	14.2	11.3	14.4	15.8	14.8	15.9
15. PHHO	17.0	17.0	1.0	--	2.1	--	2.3	--	2.5	6.0	3.2	6.1	3.4	9.0	3.6	15.7	14.8	15.9	14.8	15.9	14.9	15.9
16. POSE	17.0	17.0	1.5	--	2.3	--	3.1	--	3.3	--	4.4	6.1	4.5	--	14.5	8.5	14.9	15.9	14.9	15.9	14.9	15.9
17. SAKA	14.9	15.9	14.9	15.9	--	--	--	--	--	--	--	--	--	--	--	--	3.5	--	3.6	5.5	4.5	7.0
18. SIHY	17.0	17.0	17.0	17.0	1.1	--	2.2	--	3.6	--	4.3	5.5	4.3	6.2	4.5	7.2	14.2	15.1	14.8	15.6	14.8	15.9
19. VIVA	17.0	17.0	17.0	17.0	17.0	17.0	1.0	--	2.2	--	2.5	--	3.3	--	--	--	4.1	--	4.7	--	--	--
20. YUGL	14.8	15.9	--	--	--	--	--	--	3.2	--	4.0	--	4.0	--	--	--	4.0	--	4.5	--	4.6	--
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Horse Creek 1974 Type-site ARNO - AGSP

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	20 Sep		15 Oct		22 Nov																	
1. AGSP	14.9	15.9	14.9	15.9	16.5	15.9																
2. ARLO	14.9	15.9	17.0	17.0	17.0	17.0																
3. ARNO	4.6	8.2	14.2	11.0	14.4	15.9																
4. ARTR	4.5	8.0	14.0	10.5	14.4	15.8																
5. ASPU	--	--	17.0	17.0	17.0	17.0																
6. BRTE	14.9	15.9	14.9	15.9	14.9	15.9																
7. CIR	14.9	15.9	14.9	15.9	14.9	15.9																
8. CRBR	14.9	15.9	14.9	15.9	16.5	15.9																
9. FULA	14.2	15.2	14.5	15.8	14.8	15.9																
10. GACO	14.9	15.9	17.0	17.0	17.0	17.0																
11. GUSA	4.8	13.5	14.9	15.9	16.3	15.9																
12. HAAC	14.9	15.9	14.9	15.9	16.3	15.9																
13. OPPO	14.4	15.8	14.5	15.9	14.8	15.9																
14. ORHY	14.9	15.9	17.0	17.0	17.0	17.0																
15. PHHO	14.9	15.9	17.0	17.0	17.0	17.0																
16. POSE	14.9	15.9	17.0	17.0	17.0	17.0																
17. SAKA	14.9	15.9	14.9	15.9	14.9	15.9																
18. SIHY	14.9	15.9	17.0	17.0	17.0	17.0																
19. VIVA	17.0	17.0	17.0	17.0	17.0	17.0																
20. YUGL	14.6	--	14.6	--	14.6	--																
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Horse Creek 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION		VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
		1 Feb		21 Feb		7 March		29 March		16 April		21 May		4 June		18 June		11 July		30 July		22 Aug	
1.	AGSM	17.0	17.0	17.0	17.0	1.1	--	1.4	--	2.8	--	3.8	--	4.1	--	4.3	6.6	14.4	11.0	14.7	12.0	14.9	15.9
2.	ARTR	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.1	--	2.5	--	3.2	5.2	3.4	5.4	3.5	5.6	4.0	5.8
3.	BRCO	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.3	6.8	--	--	14.9	15.8	14.9	15.9
4.	BRTE	--	--	2.0	--	2.2	--	3.1	--	--	--	4.3	5.4	4.3	6.5	4.5	9.5	14.9	15.9	14.9	15.9	14.9	15.9
5.	CAAN	17.0	17.0	17.0	17.0	--	--	2.1	--	3.3	6.0	3.5	7.3	3.5	8.2	3.6	9.0	--	--	14.9	15.9	14.9	15.9
6.	CANU	17.0	17.0	17.0	17.0	17.0	17.0	1.0	--	2.0	--	3.0	--	3.3	6.0	4.3	8.5	14.0	13.0	14.9	15.9	14.9	15.9
7.	CRE	--	--	14.9	17.0	14.9	15.9	--	--	2.3	--	3.5	7.2	--	--	14.2	--	--	--	14.9	15.9	14.9	15.9
8.	ERPU	17.0	17.0	17.0	15.9	17.0	17.0	--	--	--	--	--	--	3.5	7.3	3.7	8.0	--	--	14.9	15.9	14.9	15.9
9.	EULA	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	1.1	--	2.5	--	3.3	--	3.4	5.2	3.4	5.3	3.6	5.6	4.8	11.5
10.	GUSA	17.0	17.0	2.0	17.0	2.1	--	2.3	--	2.4	--	3.1	--	3.2	--	3.3	5.3	3.9	5.6	4.2	5.8	4.2	5.9
11.	MACA	17.0	17.0	17.0	--	17.0	17.0	1.0	--	2.0	--	--	--	--	--	3.6	7.3	--	--	14.3	15.9	14.8	15.9
12.	OPPO	14.8	15.9	14.8	17.0	14.8	15.9	14.8	15.9	1.0	--	3.0	5.1	3.2	6.0	3.3	6.8	3.5	11.7	14.0	12.5	14.2	15.5
13.	PHHO	17.0	17.0	1.0	15.9	2.1	--	2.3	--	2.4	5.4	3.2	5.2	3.8	8.6	4.5	13.2	14.9	15.9	14.9	15.9	14.9	15.9
14.	SIHY	17.0	17.0	17.0	--	1.1	--	--	--	--	--	4.0	5.5	4.5	6.2	4.6	6.5	14.2	15.1	14.5	15.3	14.8	15.9
15.	SPCO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.0	--	3.3	--	3.5	7.2	14.1	--	14.1	--	14.2	15.9	14.5	15.9
16.	STCO	17.0	17.0	17.0	17.0	17.0	17.0	--	--	--	--	4.0	5.5	4.3	6.0	4.4	6.5	14.2	13.9	14.6	15.3	14.7	15.9
17.	TRDU	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	--	3.0	5.0	3.5	9.0	--	--	14.9	15.9	14.9	15.9
18.	VINU	17.0	17.0	17.0	17.0	--	--	--	--	--	--	2.5	--	--	--	14.3	15.9	--	--	--	--	14.8	15.9
19.	ZYVE	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.1	--	3.6	7.1	3.7	9.0	14.2	10.6	14.9	15.9	14.9	15.9	17.0	17.0
20.																							
21.																							
22.																							

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Horse Creek 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	20 Sep		15 Oct		22 Nov																	
1. AGSM	14.9	15.9	17.0	17.0	17.0	17.0																
2. ARTR	4.5	8.0	14.0	10.5	14.4	15.8																
3. BRCO	14.9	15.9	14.9	15.9	14.9	15.9																
4. BRTE	14.9	15.9	14.9	15.9	14.9	15.9																
5. CAAN	17.0	17.0	17.0	17.0	17.0	17.0																
6. CANU	17.0	17.0	17.0	17.0	17.0	17.0																
7. CRE	14.9	15.9	14.9	15.9	14.9	15.9																
8. ERPU	14.9	15.9	17.0	17.0	17.0	17.0																
9. EULA	14.2	15.2	14.5	15.8	14.8	15.9																
10. GUSA	4.8	13.5	14.9	15.9	16.3	15.9																
11. MACA	14.9	15.9	17.0	17.0	17.0	17.0																
12. OPPO	14.4	15.8	14.5	15.9	14.8	15.9																
13. PHHO	14.9	15.9	17.0	17.0	17.0	17.0																
14. SIHY	14.9	15.9	17.0	17.0	17.0	17.0																
15. SPCO	14.9	15.9	17.0	17.0	17.0	17.0																
16. STCO	14.9	15.9	17.0	17.0	17.0	17.0																
17. TRDU	14.9	15.9	17.0	17.0	17.0	17.0																
18. VINU	14.9	15.9	17.0	17.0	17.0	17.0																
19. ZYVE	17.0	17.0	17.0	17.0	17.0	17.0																
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Mesa Antelope 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	30 March		23 May		20 June		15 Nov															
1. AGSM	1.1	--	3.6	--	4.3	6.4	17.0	17.0														
2. ARTR	14.9	15.9	1.1	--	3.2	5.2	14.3	15.8														
3. CAEL	--	--	3.6	--	4.4	10.2	17.0	17.0														
4. CHVI	17.0	17.0	3.0	--	3.4	5.0	17.0	17.0														
5. ERCA	2.0	--	3.2	7.3	4.5	15.2	14.7	15.9														
6. EROV	2.0	--	3.5	7.3	--	--	14.6	15.9														
7. ERPU	--	--	2.7	--	3.3	5.2	17.0	17.0														
8. EULA	17.0	17.0	3.0	--	3.4	5.0	17.0	17.0														
9. LEPU	17.0	17.0	2.7	--	3.3	9.1	17.0	17.0														
10. MACA	--	--	--	--	4.5	13.7	14.9	15.8														
11. OPPO	14.8	15.9	3.0	--	3.3	5.1	14.7	15.9														
12. ORHY	1.2	--	3.8	--	4.5	7.2	17.0	17.0														
13. PELA	--	--	3.6	--	--	--	17.0	17.0														
14. PHHO	1.1	--	3.5	8.0	4.2	15.3	17.0	17.0														
15. POSE	3.0	--	4.3	5.2	14.5	10.2	17.0	17.0														
16. SIHY	2.2	--	3.4	--	4.4	7.2	17.0	17.0														
17. STCO	1.2	--	3.8	--	4.4	6.6	17.0	17.0														
18. TRI	--	--	3.2	--	14.1	--	17.0	17.0														
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Owl Draw 1974 Type-site ARNO - ARTR - AGSM - AGSP (Livestock exc.)

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	3 June		17 June		12 July		1 Aug															
1. AGSM	4.2	--	4.3	5.7	14.2	10.2	14.3	13.7														
2. AGSP	4.3	5.0	4.4	6.7	14.3	11.0	14.4	15.9														
3. ALTE	--	--	--	--	14.9	15.9	14.9	15.9														
4. ARHO	3.6	8.4	4.3	13.0	14.5	15.9	14.6	15.9														
5. ARNO	2.8	--	3.3	5.3	3.3	5.3	3.6	5.6														
6. ARNU	3.5	7.0	--	--	--	--	--	--														
7. ARTR	3.1	--	3.2	5.2	3.4	5.4	3.5	5.5														
8. CANU	3.0	6.0	--	--	14.5	10.0	14.8	11.0														
9. CHVI	3.0	--	3.2	5.1	3.4	5.4	3.6	5.7														
10. DEPI	--	--	4.0	--	14.9	15.9	14.9	15.9														
11. HAAC	3.5	6.7	3.6	9.0	14.0	15.9	14.1	15.9														
12. JUOS	3.0	--	3.1	--	3.4	--	4.0	--														
13. JUSC	3.0	--	3.1	--	3.3	--	4.0	--														
14. KOCR	4.4	6.3	4.7	15.2	14.4	15.7	14.6	15.9														
15. LELU	3.5	6.8	3.7	9.0	14.1	15.9	14.2	15.9														
16. LERE	3.5	7.0	14.9	7.3	14.9	15.8	14.9	15.9														
17. MAGR	3.3	6.2	3.5	9.2	--	--	14.9	15.9														
18. ORHY	4.3	5.0	4.4	6.5	14.3	15.5	14.7	15.9														
19. PHHO	3.8	8.6	4.5	13.2	14.7	15.9	14.8	15.9														
20. POFE	4.4	6.3	4.5	8.7	14.5	15.5	14.7	15.9														
21. POSE	4.5	6.5	4.5	9.0	14.9	15.8	14.9	15.9														
22. STCO	4.3	5.0	4.4	6.5	14.3	15.7	14.5	15.9														
23. VIAM	3.5	6.7	4.0	15.9	14.7	15.9	14.9	15.9														

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Red Wash #2 1974 Type-site ARTR - AGSM - AGSP

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	11 March		30 March		7 June		21 June		1 Aug		26 Dec											
1. AGSM	17.0	17.0	1.1	--	3.9	5.1	4.5	6.7	14.3	13.8	17.0	17.0										
2. AGSP	17.0	17.0	1.3	--	4.3	6.1	4.8	6.9	14.3	15.5	17.0	17.0										
3. ALTE	17.0	17.0	17.0	17.0	3.5	8.3	14.2	11.2	--	--	17.0	17.0										
4. ARHO	17.0	17.0	1.2	--	3.6	9.5	4.8	15.3	17.0	17.0	17.0	17.0										
5. ARNO	14.8	15.9	14.8	15.9	3.3	5.1	3.8	5.3	4.0	5.9	14.8	15.9										
6. ARTR	14.8	15.9	14.8	15.9	3.3	5.1	3.7	5.7	4.0	5.8	14.8	15.9										
7. ASDI	17.0	17.0	17.0	17.0	3.5	10.3	4.8	11.1	4.9	11.3	17.0	17.0										
8. ASMO	17.0	17.0	17.0	17.0	3.6	10.4	4.6	11.5	14.0	12.0	17.0	17.0										
9. ASPU	17.0	17.0	17.0	17.0	3.6	7.8	4.7	15.9	14.3	15.9	17.0	17.0										
10. CHDO	17.0	17.0	2.1	--	3.5	7.5	4.5	11.5	14.2	15.1	17.0	17.0										
11. CHNA	14.8	15.9	14.8	15.9	3.1	--	4.2	5.1	3.5	5.7	17.0	17.0										
12. CHVI	17.0	17.0	17.0	17.0	3.3	--	3.9	5.0	3.5	5.8	17.0	17.0										
13. CRFL	17.0	17.0	17.0	17.0	3.3	7.5	3.5	8.1	14.1	13.0	17.0	17.0										
14. DEPI	14.9	15.9	14.9	15.9	4.0	--	14.1	9.8	14.9	15.9	14.9	15.9										
15. ERAS	17.0	17.0	17.0	17.0	3.6	9.2	14.2	10.5	14.1	15.3	17.0	17.0										
16. ERMI	17.0	17.0	17.0	17.0	3.0	--	3.8	6.3	4.5	10.5	17.0	17.0										
17. EROV	17.0	17.0	17.0	17.0	3.6	6.5	3.8	7.0	14.5	15.9	14.8	15.9										
18. EULA	14.8	15.9	--	--	3.3	--	3.8	--	14.0	7.0	14.8	15.9										
19. GIAG	17.0	17.0	17.0	17.0	--	--	14.1	9.2	14.2	10.5	17.0	17.0										
20. GRSP	17.0	17.0	17.0	17.0	3.2	--	4.8	5.1	3.7	6.0	17.0	17.0										
21. HAAC	17.0	17.0	1.1	--	3.6	8.7	4.0	9.1	16.8	15.9	17.0	17.0										
22. LEPU	17.0	17.0		17.0	3.3	5.2	4.9	9.9	14.4	13.5	17.0	17.0										

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Red Wash #2 1974 Type-site ARTR - AGSM - AGSP

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	11 March		30 March		7 June		21 June		1 Aug		26 Dec											
1. MACA	17.0	17.0	17.0	17.0	3.3	5.5	3.5	6.4	4.0	6.7	17.0	17.0										
2. OPPO	14.8	15.9	14.8	15.9	3.3	5.0	3.8	5.5	14.6	15.9	14.8	15.9										
3. ORFA	17.0	17.0	17.0	17.0	3.5	7.0	3.9	2.5	17.0	17.0	17.0	17.0										
4. ORHY	1.1	--	1.2	--	4.3	6.2	4.7	7.0	14.3	15.3	17.0	17.0										
5. PEN	17.0	17.0	2.6	--	3.4	5.3	14.1	8.7	14.2	10.0	17.0	17.0										
6. PHHO	17.0	17.0	1.2	--	3.6	9.5	4.8	15.3	14.5	15.9	17.0	17.0										
7. POSE	1.2	--	2.1	--	4.5	7.0	14.2	8.5	14.5	10.0	17.0	17.0										
8. SIHY	17.0	17.0	1.2	--	4.2	6.0	4.3	6.8	14.1	15.4	17.0	17.0										
9. SILI	14.9	15.9	14.9	15.9	3.7	10.5	4.9	15.9	14.9	15.9	14.9	15.9										
10. STCO	17.0	17.0	1.2	--	4.3	6.2	4.8	6.9	14.4	15.9	17.0	17.0										
11. TECA	17.0	17.0	17.0	17.0	3.4	5.1	4.5	5.2	4.0	10.0	17.0	17.0										
12.																						
13.																						
14.																						
15.																						
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Shoshoni Ant #7 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	31 Jan		21 Feb		7 March		28 March		25 April		22 May		3 June		17 June		16 July		29 July		25 Oct	
	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
1. AGSM	17.0	15.3	17.0	15.3	17.0	17.0	1.2	--	3.0	--	3.5	--	3.7	--	4.2	--	14.2	10.5	14.6	12.3	14.9	13.4
2. ALTE	17.0	17.0	17.0	17.0	17.0	17.0	--	--	--	--	--	--	--	--	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9
3. ARTR	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	14.9	15.9	1.1	--	3.0	--	3.1	5.1	3.3	5.3	3.5	5.5	14.2	10.5
4. ASPU	17.0	17.0	1.0	--	1.5	--	2.0	--	3.0	5.0	3.2	6.1	3.5	7.0	4.5	15.9	14.2	15.9	14.7	15.9	14.9	15.9
5. BOGR	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.5	--	2.7	--	3.0	--	3.2	--	14.0	5.2	14.2	--	14.8	--
6. BRTE	14.9	15.9	14.9	15.9	2.1	--	3.0	--	3.5	5.7	4.0	6.5	4.3	7.0	4.5	12.2	14.9	15.9	14.9	15.9	14.9	15.9
7. ERPU	17.0	17.0	2.0	--	2.2	--	3.0	--	3.2	5.0	3.5	6.0	3.7	11.0	14.2	15.9	14.7	15.9	14.9	15.9	14.9	15.9
8. OPPO	14.9	15.9	14.9	15.9	14.8	15.9	14.8	15.9	2.2	--	3.2	5.0	3.3	5.5	3.4	7.2	4.8	12.2	14.0	12.5	14.8	15.9
9. ORHY	17.0	17.0	1.0	--	1.3	--	1.5	--	3.5	--	3.7	--	4.0	--	4.4	11.4	14.2	15.2	14.4	15.9	16.5	15.9
10. PHHO	17.0	17.0	1.0	--	2.0	--	2.1	--	3.5	7.0	3.5	9.0	3.5	9.2	4.3	10.0	14.8	15.9	14.8	15.9	16.1	15.9
11. PLPA	14.9	15.9	2.0	--	2.2	--	2.1	--	3.0	--	3.5	5.5	3.7	7.0	14.5	12.3	14.9	15.5	14.9	15.9	14.9	15.9
12. POSE	17.0	17.0	1.0	--	2.0	--	2.3	--	3.1	--	3.3	6.7	4.0	7.0	14.5	11.5	14.9	15.5	14.9	15.8	16.5	15.9
13. SIHY	17.0	17.0	17.0	17.0	17.0	17.0	1.4	--	3.2	--	4.3	6.0	4.4	6.5	4.5	6.6	14.3	15.4	14.5	15.9	16.5	15.9
14. SPCO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	3.2	--	3.5	6.8	3.6	7.2	14.2	15.9	14.3	15.9	14.9	15.9
15. STCO	17.0	17.0	1.0	--	1.3	--	1.4	--	3.2	--	3.7	--	4.0	--	4.3	6.3	14.2	15.2	14.4	15.9	16.5	15.9
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Shoshoni Ant #7 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	23 Nov																					
1. AGSM	17.0	17.0																				
2. ALTE	17.0	17.0																				
3. ARTR	14.5	15.9																				
4. ASPU	17.0	17.0																				
5. BOGR	16.4	15.7																				
6. BRTE	14.9	15.9																				
7. ERPU	17.0	17.0																				
8. OPPO	14.8	15.9																				
9. ORHY	16.7	15.9																				
10. PHHO	16.5	15.9																				
11. PLPA	14.9	15.9																				
12. POSE	16.7	15.9																				
13. SIHY	16.7	15.9																				
14. SPCO	17.0	17.0																				
15. STCO	16.7	15.9																				
16.																						
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Sweetwater 1974 Type-site ARNO - ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	2 Feb		21 Feb		7 March		28 March		25 April		22 May		5 June		19 June		16 July		29 July		25 Oct	
1. AGSM	17.0	17.0	17.0	17.0	17.0	17.0	1.1	--	2.4	--	3.7	--	4.1	5.0	4.5	6.7	14.2	10.2	14.6	13.0	14.9	15.2
2. ARFR	17.0	17.0	17.0	17.0	17.0	17.0	1.0	--	1.5	--	2.2	--	3.3	--	3.3	5.2	4.0	5.4	4.0	5.4	14.7	15.9
3. ARHO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	--	--	--	3.5	6.5	3.7	7.6	14.2	10.5	14.0	15.9	17.0	17.0
4. ARHO$_2$	--	--	--	--	--	--	1.0	--	2.0	--	3.5	7.0	14.5	9.5	14.8	10.5	14.9	15.9	14.9	15.9	14.9	14.9
5. ARNO	14.8	15.9	14.8	15.9	14.8	15.9	14.8	15.9	14.8	15.9	1.0	--	3.3	5.1	3.3	5.3	3.5	5.5	3.6	5.6	14.2	15.2
6. ARTR	14.8	15.9	14.8	15.9	14.8	15.9	14.8	15.9	14.8	15.9	1.0	--	3.2	5.1	3.2	5.3	3.4	5.4	3.5	5.5	14.0	13.8
7. ASDI	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.0	--	3.2	--	3.5	7.2	3.8	9.5	14.9	15.9
8. ASPU	17.0	17.0	17.0	17.0	17.0	17.0	2.4	--	3.0	5.3	3.5	6.5	3.6	7.8	4.2	15.6	4.8	15.9	14.5	15.9	17.0	17.0
9. ASSP	17.0	17.0	17.0	17.0	17.0	17.0	2.0	--	3.2	5.5	3.5	6.5	3.6	7.5	3.9	8.2	4.5	11.0	4.8	15.9	17.0	17.0
10. AST	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	--	3.1	6.0	3.5	7.3	4.0	8.0	4.5	9.0	4.5	10.5	17.0	17.0
11. CAEL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.9	9.0	14.2	13.5	14.3	12.5	17.0	17.0
12. CAFI	17.0	17.0	17.0	17.0	17.0	17.0	1.2	--	2.6	--	4.2	6.7	4.5	12.3	4.6	12.5	14.3	15.9	14.4	15.8	17.0	17.0
13. CANU	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	3.2	--	3.3	6.0	3.6	8.0	14.5	15.9	14.9	15.9	17.0	17.0
14. CHDO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	--	3.6	7.3	4.7	15.8	4.5	15.2	14.6	15.9
15. CHNA	14.8	15.9	14.8	15.9	14.8	15.9	14.8	15.9	1.0	--	2.2	--	3.0	--	3.2	--	3.5	5.5	3.5	5.5	14.7	--
16. CHVI	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.2	--	2.8	--	3.2	--	3.4	--	3.5	5.4	4.0	5.8	14.9	15.9
17. COPA	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	3.0	--	3.5	7.1	3.5	8.0	3.7	9.8	4.3	12.5	14.0	15.9	17.0	17.0
18. CRBR	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	3.0	--	3.5	8.3	3.6	8.5	4.0	8.0	14.1	11.5	14.2	12.5	16.5	15.9
19. CRFL	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	3.0	--	3.5	8.0	3.6	8.3	4.0	8.0	14.1	11.5	14.2	12.5	16.5	15.9
20. DEGE	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	3.0	--	4.0	5.7	4.5	7.0	14.3	9.2	14.9	15.9	14.9	15.9	17.0	17.0
21. ERLA	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	--	--	3.6	8.2	4.0	9.2	4.5	15.0	4.5	15.5	4.9	15.9	17.0	17.0
22. EROV	17.0	17.0	17.0	17.0	17.0	17.0	1.7	17.0	2.0	--	3.3	7.2	3.8	9.0	4.2	9.1	14.3	15.9	4.7	15.9	14.8	15.9

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Sweetwater 1974 Type-site ARNO - ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	23 Nov																					
1. AGSM	17.0	17.0																				
2. ARFR	14.9	15.9																				
3. ARHO	17.0	17.0																				
4. $ARHO_2$	14.9	14.9																				
5. ARNO	14.5	15.9																				
6. ARTR	14.3	15.9																				
7. ASDI	17.0	17.0																				
8. ASPU	17.0	17.0																				
9. ASSP	17.0	17.0																				
10. ASI	17.0	17.0																				
11. CAEL	17.0	17.0																				
12. CAFI	17.0	17.0																				
13. CANU	17.0	17.0																				
14. CHDO	17.0	17.0																				
15. CHNA	14.8	15.9																				
16. CHVI	17.0	17.0																				
17. COPA	17.0	17.0																				
18. CRBR	17.0	17.0																				
19. CRFL	17.0	17.0																				
20. DEGE	17.0	17.0																				
21. ERLA	17.0	17.0																				
22. EROV	17.0	17.0																				

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Sweetwater 1974 Type-site ARNO - ARTR - AGSM

SPECIES IDENTIFICATION	2 Feb		21 Feb		7 March		28 March		25 April		22 May		5 June		19 June		16 July		29 July		25 Oct	
	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
1. ERPU	17.0	17.0	17.0	17.0	17.0	17.0	1.7	--	2.0	--	3.2	--	--	--	4.0	8.8	4.8	15.9	14.0	15.9	14.9	15.9
2. KOCR	17.0	17.0	17.0	17.0	17.0	17.0	1.2	--	2.3	--	4.2	6.3	4.4	6.7	4.6	8.0	14.8	15.2	14.4	15.4	17.0	17.0
3. LEAL	17.0	17.0	17.0	17.0	17.0	17.0	--	--	--	--	--	--	4.5	9.0	14.0	10.0	14.2	11.5	14.8	15.0	17.0	17.0
4. LEPU	17.0	17.0	17.0	17.0	17.0	17.0	--	17.0	2.0	--	2.6	--	3.3	5.2	3.6	8.2	4.3	13.5	14.4	13.5	17.0	17.0
5. OPPO	14.8	15.9	14.8	15.9	14.8	15.9	17.0	15.9	1.0	--	2.5	--	3.0	--	3.3	5.1	14.0	11.7	14.1	12.0	14.6	15.9
6. ORFA	17.0	17.0	17.0	17.0	17.0	17.0	14.8	--	--	--	--	--	14.9	6.0	14.9	7.0	--	--	14.9	15.9	17.0	17.0
7. ORHY	17.0	17.0	17.0	17.0	17.0	17.0	--	--	2.2	--	4.3	5.0	--	--	4.7	9.3	14.3	15.3	14.4	15.7	17.0	17.0
8. OXLA	17.0	17.0	17.0	17.0	17.0	17.0	1.2	--	3.2	5.5	3.5	6.3	3.6	7.5	4.0	9.1	14.3	--	14.9	15.9	17.0	17.0
9. PHHO	17.0	17.0	17.0	17.0	17.0	17.0	2.3	--	2.0	6.0	3.5	8.0	3.6	8.6	3.9	12.2	14.4	15.9	14.7	15.9	17.0	17.0
10. POSE	17.0	17.0	17.0	17.0	17.0	17.0	1.5	--	2.8	--	3.5	5.0	4.4	6.7	4.5	7.4	14.9	15.7	14.9	15.8	17.0	17.0
11. PSTE	17.0	17.0	17.0	17.0	17.0	17.0	1.3	17.0	17.0	17.0	1.5	--	3.2	--	3.6	--	14.2	--	14.3	11.7	17.0	17.0
12. PEER	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2.3	--	--	--	--	--	3.5	7.0	4.7	15.9	4.5	11.7	17.0	17.0
13. SPCO	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	3.0	--	3.2	--	3.5	5.2	3.7	5.4	14.9	15.9	14.9	15.9	17.0	17.0
14. STCO	17.0	17.0	17.0	17.0	17.0	17.0	1.3	--	2.2	--	3.5	--	4.3	6.1	4.5	6.8	14.2	15.6	14.4	15.8	17.0	17.0
15. TECA	17.0	17.0	17.0	17.0	17.0	17.0	1.2	--	2.5	--	3.1	--	3.3	6.8	3.5	5.5	4.0	7.2	4.0	7.7	14.9	15.8
16. TOIN	17.0	17.0	17.0	17.0	17.0	17.0	1.0	--	--	--	--	--	--	--	3.7	9.1	4.3	15.9	4.7	15.9	17.0	17.0
17. VIVA	17.0	17.0	17.0	17.0	17.0	17.0	--	17.0	17.0	17.0	3.0	7.6	3.5	12.5	4.8	15.9	14.7	15.9	14.9	15.9	17.0	17.0
18. ZYVE	17.0	17.0	17.0	17.0	17.0	17.0	17.0	--	2.5	--	3.6	7.1	3.7	9.0	14.7	10.6	14.9	15.9	14.9	15.9	17.0	17.0
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Sweetwater 1974 Type-site ARNO - ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	23 Nov																					
1. ERPU	17.0	17.0																				
2. KOCR	17.0	17.0																				
3. LEAL	17.0	17.0																				
4. LEPU	17.0	17.0																				
5. OPPO	14.8	15.9																				
6. ORFA	17.0	17.0																				
7. ORHY	17.0	17.0																				
8. OXLA	17.0	17.0																				
9. PHHO	17.0	17.0																				
10. POSE	17.0	17.0																				
11. PSTE	17.0	17.0																				
12. PEER	17.0	17.0																				
13. SPCO	17.0	17.0																				
14. STCO	17.0	17.0																				
15. TECA	17.0	17.0																				
16. TOIN	17.0	17.0																				
17. VIVA	17.0	17.0																				
18. ZYVE	17.0	17.0																				
19.																						
20.																						
21.																						
22.																						

TABLE III. (continued)

PHENOLOGICAL INVENTORY Study Area Upper Gov't Draw 1974 Type-site ARTR - AGSM

SPECIES IDENTIFICATION	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR	VEG	REPR
	5 June		19 June		22 Aug		25 Oct															
1. AGSM	4.2	5.1	4.3	7.1	14.7	13.5	14.8	15.5														
2. ALTE	14.2	15.7	14.9	15.9	14.9	15.9	17.0	17.0														
3. ARTR	3.3	5.1	3.3	5.3	4.5	8.0	14.0	13.8														
4. CAS	3.5	7.6	4.0	9.2	14.9	15.9	17.0	17.0														
5. CHVI	3.4	--	3.6	--	4.2	8.0	14.9	15.9														
6. CRE	3.5	7.3	14.5	15.6	14.9	15.9	14.9	15.9														
7. ERI	--	--	4.5	15.0	14.7	15.9	17.0	17.0														
8. KOCR	4.3	7.2	4.4	8.5	14.9	15.9	17.0	17.0														
9. OPPO	3.2	5.2	3.3	5.7	14.3	15.9	14.8	15.9														
10. PEER	--	--	3.3	7.5	14.5	15.9	17.0	17.0														
11. PHHO	3.3	8.3	3.5	9.2	14.8	15.9	17.0	17.0														
12. POSE	4.3	7.2	14.8	11.0	14.9	15.9	17.0	17.0														
13. SIHY	4.4	6.5	4.5	7.0	14.4	15.5	17.0	17.0														
14. SPCO	3.2	--	3.5	8.5	14.2	15.5	17.0	17.0														
15. STCO	4.3	6.1	4.4	6.7	14.3	15.4	17.0	17.0														
16. VIAM	--	--	--	--	14.9	15.9	17.0	17.0														
17.																						
18.																						
19.																						
20.																						
21.																						
22.																						

TABLE IV.

AGROPYRON SMITHII Study Area Bud Kimball Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	3.3	--	.2	17.0	--	--	1
2.	3.1	--	.2	16.3	--	--	1
3.	3.0	--	.1	18.0	--	--	1
4.	3.0	--	.1	15.4	--	--	1
5.	3.0	--	.2	12.2	--	--	3
6.	3.2	--	.2	14.3	--	--	1
7.	2.7	--	.2	16.5	--	--	3
8.	2.8	--	.2	14.2	--	--	2
9.	2.3	--	.1	3.0	--	--	1
10.	3.0	--	.2	15.0	--	--	3
11.	3.1	--	.2	13.1	--	--	2
12.	3.1	--	.2	11.2	--	--	1
13.	3.1	--	.2	12.2	--	--	1
14.	3.0	--	.2	11.3	--	--	1
15.	--	--	--	--	--	--	--
16.	2.9	--	.2	12.6	--	--	1
17.	--	--	--	--	--	--	--
18.	3.0	--	.2	15.1	--	--	1
19.	3.1	--	.2	12.4	--	--	1
20.	3.0	--	.2	20.1	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII　Study Area Bud Kimball　Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.0	--	.2	17.7	--	--	1	
2.	3.7	--	.2	21.6	--	--	1	
3.	3.8	--	.1	22.0	--	--	1	
4.	3.7	--	.1	20.9	--	--	1	
5.	3.5	--	.2	13.4	--	--	3	
6.	4.2	--	.3	19.5	--	--	1	
7.	3.9	--	.2	21.5	--	--	3	
8.	3.7	--	.2	18.3	--	--	2	
9.	2.6	--	.1	7.0	--	--	1	
10.	3.6	--	.2	21.6	--	--	3	
11.	4.0	--	.2	17.2	--	--	2	
12.	3.7	--	.2	15.0	--	--	1	
13.	4.3	--	.3	18.1	--	--	1	
14.	4.1	--	.3	16.6	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	4.0	--	.4	17.8	--	--	1	
17.	--	--	--	--	--	--	--	Dead
18.	3.5	--	.3	21.4	--	--	1	
19.	4.2	--	.4	18.8	--	--	1	
20.	4.1	--	.4	27.3	--	--	2	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Bud Kimball Date 4 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.1	--	.3	18.2	--	--	1	
2.	3.9	--	.3	21.8	--	--	1	
3.	3.7	--	.2	22.3	--	--	1	
4.	3.9	--	.2	21.7	--	--	1	
5.	3.7	--	.2	13.8	--	--	3	
6.	4.3	--	.3	21.0	--	--	1	
7.	3.9	--	.3	22.0	--	--	3	
8.	3.9	--	.3	18.9	--	--	2	
9.	2.8	--	.1	7.0	--	--	1	
10.	3.9	--	.3	21.9	--	--	3	
11.	4.2	--	.3	17.6	--	--	2	
12.	3.9	--	.3	15.2	--	--	1	
13.	4.4	--	.4	18.4	--	--	1	
14.	4.3	--	.4	17.2	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	4.2	--	.5	18.2	--	--	1	
17.	--	--	--	--	--	--	--	Dead
18.	3.9	--	.4	21.6	--	--	1	
19.	4.2	--	.5	19.0	--	--	1	Eaten
20.	4.3	--	.5	28.0	--	--	2	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Bud Kimball Date 18 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	4.5	--	.4	18.3	--	--	1
2.	4.2	--	.3	21.8	--	--	1
3.	4.0	--	.2	22.5	--	--	1
4.	4.2	--	.2	21.8	--	--	1
5.	4.0	--	.2	13.9	--	--	3
6.	4.5	--	.4	21.2	--	--	1
7.	4.1	--	.3	22.3	--	--	3
8.	4.2	--	.3	18.9	--	--	2
9.	3.5	--	.2	7.1	--	--	1
10.	4.3	--	.4	22.0	--	--	3
11.	4.5	--	.4	17.8	--	--	2
12.	4.0	--	.3	15.3	--	--	1
13.	4.6	--	.5	18.4	--	--	1
14.	4.5	--	.4	17.3	--	--	1
15.	--	--	--	--	--	--	--
16.	4.5	--	.5	18.3	--	--	1
17.	--	--	--	--	--	--	--
18.	4.2	--	.4	21.7	--	--	1
19.	4.4	--	.5	19.1	--	--	1
20.	4.5	--	.5	28.2	--	--	2

TABLE IV. (continued)

ARTEMISIA TRIDENTATA   Study Area Bud Kimball   Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No	New	21.5	--	--	29.0	4	20	--	--
2.	Growth		8.0	--	--	11.0	2	0	--	--
3.			25.5	--	--	33.3	4	10	--	--
4.			9.8	--	--	15.1	2	0	--	--
5.			38.5	--	--	41.8	4	20	--	--
6.			18.5	--	--	33.0	5	25	--	--
7.			11.9	--	--	7.5	2	1	--	--
8.			27.3	--	--	62.9	5	30	--	--
9.			11.9	--	--	22.8	3	10	--	--
10.			14.5	--	--	21.3	3	2	--	--
11.			20.0	--	--	26.0	3	1	--	--
12.			9.5	--	--	9.9	2	10	--	--
13.			8.7	--	--	7.9	2	5	--	--
14.			10.7	--	--	6.3	2	2	--	--
15.			32.0	--	--	31.0	3	5	--	--
16.			25.9	--	--	43.5	5	25	--	--
17.			26.3	--	--	35.5	4	15	--	--
18.			50.8	--	--	87.9	4	10	--	--
19.			48.6	--	--	57.4	4	20	--	--
20.			13.5	--	--	16.5	2	2	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Bud Kimball Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	1.0	--	17.0	--	--	29.0	4	20	--	--
2.	1.0	--	7.0	--	--	11.0	2	0	--	--
3.	--	--	20.5	--	--	33.3	4	10	--	--
4.	--	--	9.8	--	--	15.1	2	0	--	--
5.	--	--	38.5	--	--	41.8	4	20	--	--
6.	1.0	--	18.0	--	--	33.0	5	25	--	--
7.	1.1	--	10.0	--	--	7.5	2	1	--	--
8.	1.1	--	27.3	--	--	62.9	5	30	--	--
9.	--	--	11.9	--	--	22.8	3	10	--	--
10.	--	--	14.5	--	--	21.3	3	2	--	--
11.	1.0	--	20.0	--	--	26.0	3	1	--	--
12.	1.1	--	9.5	--	--	9.9	2	10	--	--
13.	1.1	--	8.7	--	--	7.9	2	5	--	--
14.	1.0	--	10.5	--	--	6.3	2	2	--	--
15.	--	--	31.0	--	--	31.0	3	5	--	--
16.	1.0	--	24.6	--	--	43.5	5	25	--	--
17.	1.0	--	25.2	--	--	35.5	4	45	--	--
18.	--	--	46.3	--	--	87.9	4	10	--	--
19.	--	--	47.2	--	--	57.4	4	20	--	--
20.	1.1	--	13.5	--	--	16.5	2	2	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Bud Kimball Date 4 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	17.2	--	--	29.0	4	20	2.5	--
2.	3.2	--	7.5	--	--	11.0	2	0	2.5	--
3.	3.1	--	20.9	--	--	33.3	4	10	1.5	--
4.	3.0	--	9.8	--	--	15.1	2	0	.5	--
5.	3.1	--	40.4	--	--	41.8	4	20	.5	--
6.	3.2	--	15.5	--	--	33.0	5	25	3.0	--
7.	3.2	--	10.0	--	--	7.5	2	1	2.5	--
8.	3.2	--	30.0	--	--	62.9	5	30	2.5	--
9.	3.1	--	13.9	--	--	22.8	3	10	1.0	--
10.	3.1	--	13.0	--	--	21.3	3	2	1.0	--
11.	3.2	--	20.5	--	--	26.0	3	1	3.0	--
12.	2.2	--	9.3	--	--	9.9	2	10	--	--
13.	3.2	--	10.9	--	--	7.9	2	5	3.5	--
14.	3.2	--	10.7	--	--	6.3	2	2	3.0	--
15.	3.1	--	30.0	--	--	31.0	3	5	1.0	--
16.	3.2	--	13.3	--	--	43.5	5	25	2.5	--
17.	3.2	--	17.1	--	--	35.5	4	95	2.0	--
18.	3.2	--	45.6	--	--	87.9	4	10	2.5	--
19.	3.2	--	47.4	--	--	57.4	4	20	3.0	--
20.	3.2	--	13.7	--	--	16.4	2	2	1.5	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Bud Kimball Date 18 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.2	17.2	--	--	29.0	4	20	2.5	3.0
2.	3.3	5.3	7.9	--	--	11.0	2	0	2.5	3.0
3.	3.2	5.1	20.9	--	--	33.3	4	10	1.5	2.5
4.	3.1	5.0	9.8	--	--	15.1	2	0	1.0	2.0
5.	3.2	5.1	40.4	--	--	41.8	4	20	1.0	2.5
6.	3.3	5.2	15.5	--	--	33.0	5	25	3.0	3.5
7.	3.3	5.2	10.5	--	--	7.5	2	1	2.5	3.0
8.	3.3	5.1	30.0	--	--	62.9	5	30	2.5	3.5
9.	3.1	5.0	13.9	--	--	22.8	3	10	1.0	1.5
10.	3.1	5.0	13.0	--	--	21.3	3	2	1.0	2.0
11.	3.2	5.1	20.5	--	--	26.0	3	1	3.0	3.5
12.	2.7	--	9.5	--	--	9.9	2	10	--	--
13.	3.3	5.2	11.1	--	--	7.9	2	5	3.5	3.0
14.	3.3	5.2	10.8	--	--	6.3	2	2	3.0	3.5
15.	3.2	5.1	30.0	--	--	31.0	3	5	1.5	2.5
16.	3.3	5.2	13.3	--	--	43.5	5	25	2.5	2.5
17.	3.3	5.2	17.3	--	--	35.5	4	95	2.5	3.0
18.	3.3	5.1	45.1	--	--	87.9	4	10	2.5	3.0
19.	3.3	5.2	47.4	--	--	57.4	4	20	3.0	3.5
20.	3.3	5.2	13.8	--	--	16.4	2	2	1.5	2.0

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cedar Mountain Date 11 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	--	--	--	--	16.0	--	--	--	--	--		
2.	--	--	--	--	.1	--	--	--	--	--		seedling
3.	1.0	--	--	--	.5	.1	.8	--	--	--		young
4.	1.1	--	--	--	15.0	.1	1.6	--	--	--		mature - dense
5.	--	--	--	--	16.5	--	--	--	--	--		mature - dense
6.	1.0	--	--	--	29.5	.1	1.5	--	--	--		mature - intermediate
7.	1.1	--	--	--	23.0	.1	1.0	--	--	--		mature - intermediate
8.	1.2	--	--	--	6.0	.1	4.6	--	--	--		young - dense
9.	1.2	--	--	--	8.5	.1	2.6	--	--	--		mature - intermediate
10.	1.2	--	--	--	27.0	.1	3.9	--	--	--		mature - intermediate
11.	1.1	--	--	--	9.0	.1	2.1	--	--	--		intermediate - dense
12.	1.2	--	--	--	14.5	.1	4.1	--	--	--		old - decadant
13.	--	--	--	--	.2	--	--	--	--	--		young
14.	1.2	--	--	--	2.0	.1	3.4	--	--	--		young
15.	1.2	--	--	--	4.0	.2	4.0	--	--	--		intermediate - intermediate
16.	1.0	--	--	--	7.0	.1	2.2	--	--	--		intermediate - dense
17.	1.0	--	--	--	17.0	.2	1.5	--	--	--		mature - dense
18.	1.1	--	--	--	20.0	.1	1.3	--	--	--		mature - sparse
19.	--	--	--	--	19.0	--	--	--	--	--		mature - sparse
20.	1.1	--	--	--	14.0	.1	1.6	--	--	--		mature - dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cedar Mountain Date 24 May 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	4.4	5.0	--	--	16.0	.3	20.1	10.0	--	--		
2.	4.3	--	--	--	.1	.2	14.6	--	--	--		Eaten
3.	4.3	5.0	--	--	.5	.2	18.0	13.4	--	--		
4.	4.2	--	--	--	15.0	.3	21.2	--	--	--		
5.	3.9	--	--	--	16.5	.2	23.4	--	--	--		
6.	4.3	5.0	--	--	29.5	.3	25.1	13.6	--	--		
7.	4.2	5.0	--	--	23.0	.2	19.0	10.5	--	--		
8.	4.1	--	--	--	6.0	.2	18.3	--	--	--		
9.	4.2	5.0	--	--	8.5	.3	17.5	9.0	--	--		
10.	4.2	--	--	--	27.0	.3	27.4	--	--	--		
11.	4.2	5.0	--	--	9.0	.3	21.4	13.5	--	--		
12.	4.1	--	--	--	14.5	.2	12.0	--	--	--		
13.	4.0	--	--	--	.2	.2	9.6	--	--	--		
14.	4.3	5.0	--	--	2.0	.3	17.6	9.8	--	--		
15.	4.2	5.0	--	--	4.0	.3	19.2	10.0	--	--		
16.	4.3	5.0	--	--	7.0	.2	21.0	13.2	--	--		
17.	4.2	5.0	--	--	17.0	.3	19.4	10.0	--	--		
18.	4.2	5.0	--	--	20.0	.2	17.0	8.6	--	--		
19.	4.3	5.0	--	--	19.0	.3	23.4	11.8	--	--		
20.	4.2	5.0	--	--	14.0	.3	19.6	10.4	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cedar Mountain Date 13 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.5	6.7	--	--	16.0	.3	30.1	29.7	4	22		
2.	4.4	6.5	--	--	.1	.2	18.7	19.4	5	2		
3.	4.4	6.5	--	--	.5	.2	18.1	19.5	3	1		
4.	4.4	6.5	--	--	15.0	.3	27.2	25.4	6	2		
5.	4.5	6.6	--	--	16.5	.3	30.7	29.6	5	3		
6.	4.3	6.4	--	--	29.5	.3	28.5	24.4	4	14		
7.	4.4	6.5	--	--	23.0	.2	24.8	20.5	3	15		
8.	4.3	6.4	--	--	6.0	.2	20.4	18.5	3	4		
9.	4.4	6.6	--	--	8.5	.3	28.4	27.8	5	3		
10.	4.3	6.3	--	--	27.0	.3	31.9	26.0	4	15		
11.	4.3	6.5	--	--	9.0	.2	25.9	31.5	5	14		
12.	4.3	5.2	--	--	14.5	.3	17.7	--	--	--		
13.	4.3	--	--	--	.2	.2	10.8	--	--	--		
14.	4.4	6.3	--	--	2.0	.2	23.4	17.6	2	1		
15.	4.5	6.6	--	--	4.0	.3	24.7	25.6	6	5		
16.	4.5	6.6	--	--	7.0	.3	33.1	33.3	6	43		
17.	4.5	6.5	--	--	17.0	.3	25.8	24.0	5	9		
18.	4.5	6.6	--	--	20.0	.3	32.0	29.5	5	32		
19.	4.5	6.7	--	--	19.0	.3	29.6	33.5	7	19		
20.	4.3	6.6	--	--	14.0	.2	20.7	23.5	6	20		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cedar Mountain Date 21 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	4.7	7.4	--	--	16.0	.3	29.6	33.3	6	30		
2.	4.6	7.3	--	--	.1	.2	20.4	24.0	4	3		
3.	4.8	7.4	--	--	.5	.3	22.7	29.5	4	5		
4.	4.7	8.0	--	--	15.0	.3	27.3	30.6	5	6		
5.	4.6	7.4	--	--	16.5	.3	31.0	35.7	5	2		
6.	4.7	7.5	--	--	29.5	.3	28.8	31.1	6	19		
7.	4.6	8.0	--	--	23.0	.3	24.0	22.0	4	15		
8.	4.7	7.3	--	--	6.0	.2	22.1	22.5	4	5		
9.	4.7	8.0	--	--	8.5	.3	17.8	22.0	5	2		
10.	4.6	7.3	--	--	27.0	.3	35.6	34.4	6	23		
11.	4.8	7.7	--	--	9.0	.3	26.5	24.9	5	15		insect damage
12.	4.2	--	--	--	14.5	.2	12.4	--	--	--		
13.	4.3	--	--	--	.2	.3	9.0	--	--	--		
14.	4.7	7.8	--	--	2.0	.3	22.7	18.8	3	2		
15.	4.8	8.1	--	--	4.0	.3	24.8	30.0	6	5		
16.	4.6	8.2	--	--	7.0	.3	30.0	40.0	6	47		
17.	4.8	7.5	--	--	17.0	.3	29.3	29.1	7	11		
18.	4.7	8.3	--	--	20.0	.3	32.0	33.9	5	36		
19.	4.7	7.5	--	--	19.0	.3	30.9	36.2	6	32		
20.	4.8	8.2	--	--	14.0	.3	29.0	33.0	5	28		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cedar Mountain Date 27 December 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	17.0	17.0	--	--	16.0	.3	29.6	33.3	6	30		
2.	17.0	17.0	--	--	.1	.2	20.4	24.0	4	3		
3.	17.0	17.0	--	--	.5	.3	22.7	29.5	4	5		
4.	17.0	17.0	--	--	15.0	.3	27.3	30.6	5	6		
5.	17.0	17.0	--	--	16.5	.3	31.0	35.7	5	2		
6.	17.0	17.0	--	--	29.5	.3	38.8	31.1	6	19		
7.	17.0	17.0	--	--	23.0	.3	24.0	22.0	4	25		
8.	17.0	17.0	--	--	6.0	.2	22.1	22.5	4	5		
9.	17.0	17.0	--	--	8.5	.3	17.8	22.0	5	2		
10.	17.0	17.0	--	--	27.0	.3	35.6	34.4	6	23		
11.	17.0	--	--	--	9.0	.3	26.5	24.9	5	15		
12.	17.0	--	--	--	14.5	.2	12.4	--	--	--		
13.	17.0	17.0	--	--	.2	.3	9.0	--	--	--		
14.	17.0	17.0	--	--	2.0	.3	22.7	18.8	3	2		
15.	17.0	17.0	--	--	4.0	.3	24.8	30.0	6	5		
16.	17.0	17.0	--	--	7.0	.3	30.0	40.0	6	47		
17.	17.0	17.0	--	--	17.0	.3	29.3	29.1	7	11		
18.	17.0	17.0	--	--	20.0	.3	32.0	33.9	5	36		
19.	17.0	17.0	--	--	19.0	.3	30.9	36.2	6	32		
20.	17.0	17.0	--	--	14.0	.3	29.0	33.0	5	28		

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cedar Mountain Date 11 March 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	14.9	15.9	3.0	--	--	3.5	1	0	--	--
2.	14.9	15.9	12.5	--	--	22.0	5	30	--	--
3.	14.9	15.9	27.5	--	--	23.7	3	2	--	--
4.	14.9	15.9	2.7	--	--	1.6	1	0	--	--
5.	14.9	15.9	18.5	--	--	17.5	5	90	--	--
6.	14.9	15.9	17.0	--	--	12.7	2	0	--	--
7.	14.9	15.9	30.0	--	--	26.5	4	5	--	--
8.	14.9	15.9	22.0	--	--	20.0	3	2	--	--
9.	14.9	15.9	34.5	--	--	70.0	4	10	--	--
10.	14.9	15.9	20.3	--	--	71.0	4	10	--	--
11.	14.9	15.9	18.3	--	--	24.2	5	65	--	--
12.	14.9	15.9	3.0	--	--	5.5	1	0	--	--
13.	14.9	15.9	2.0	--	--	1.5	1	0	--	--
14.	14.9	15.9	3.5	--	--	24.5	1	0	--	--
15.	14.9	15.9	2.7	--	--	25.5	1	0	--	--
16.	14.9	15.9	22.7	--	--	23.0	3	10	--	--
17.	14.9	15.9	38.9	--	--	65.6	4	15	--	--
18.	14.9	15.9	2.0	--	--	1.4	1	0	--	--
19.	14.9	15.9	30.0	--	--	28.2	5	60	--	--
20.	14.9	15.9	3.0	--	--	4.6	1	0	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cedar Mountain Date 24 May 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	1.1	--	3.7	--	--	3.5	1	0	--	--
2.	1.2	--	15.5	--	--	22.0	5	30	--	--
3.	1.5	--	33.6	--	--	23.7	3	2	--	--
4.	1.2	--	5.8	--	--	1.6	1	0	--	--
5.	1.5	--	18.5	--	--	17.5	5	90	--	--
6.	1.2	--	16.8	--	--	12.7	2	0	--	--
7.	1.6	--	30.5	--	--	26.5	4	5	--	--
8.	1.1	--	19.2	--	--	20.0	3	2	--	--
9.	2.1	--	32.0	--	--	70.0	4	10	--	--
10.	2.2	--	44.5	--	--	71.0	4	10	--	--
11.	1.1	--	16.5	--	--	24.2	5	65	--	--
12.	1.0	--	2.8	--	--	5.5	1	0	--	--
13.	1.0	--	2.3	--	--	1.5	1	0	--	--
14.	1.2	--	3.1	--	--	24.5	1	0	--	--
15.	1.2	--	2.5	--	--	25.5	1	0	--	--
16.	1.6	--	26.0	--	--	23.0	3	10	--	--
17.	2.0	--	39.0	--	--	65.6	4	15	--	--
18.	1.2	--	2.8	--	--	1.4	1	0	--	--
19.	2.2	--	39.7	--	--	28.2	5	60	--	--
20.	1.2	--	4.6	--	--	4.6	1	0	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cedar Mountain Date 13 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.3	5.2	31.5	--	--	3.5	1	0	2.0	3.0	
2.	3.1	--	15.3	--	--	22.0	5	30	1.0	--	
3.	3.3	5.2	31.0	--	--	23.7	3	2	1.5	3.0	
4.	3.0	--	2.9	--	--	1.6	1	0	--	--	
5.	3.3	5.2	20.6	--	--	17.5	5	90	2.0	4.5	
6.	3.2	5.1	15.9	--	--	12.7	2	0	1.0	1.5	
7.	3.3	5.2	31.5	--	--	26.5	4	5	1.5	5.0	
8.	3.5	5.2	19.0	--	--	20.0	3	2	1.5	2.5	
9.	3.3	5.3	32.4	--	--	70.0	4	10	2.0	5.0	
10.	3.3	5.3	40.5	--	--	71.0	4	10	1.5	9.0	
11.	3.1	--	17.2	--	--	24.2	5	65	1.0	--	
12.	3.0	--	3.1	--	--	5.5	1	0	--	--	
13.	3.1	--	2.6	--	--	1.5	1	0	.5	--	
14.	3.2	--	3.7	--	--	24.5	1	0	.5	--	
15.	3.2	--	2.3	--	--	25.5	1	0	.5	--	
16.	3.3	5.2	26.5	--	--	23.0	3	10	2.5	4.0	
17.	3.3	5.3	39.4	--	--	65.6	4	15	2.5	4.0	
18.	3.2	--	2.7	--	--	1.4	1	0	.5	--	
19.	3.3	5.3	35.0	--	--	28.2	5	60	1.5	7.5	Insect Damage
20.	3.3	--	5.4	--	--	4.6	1	0	1.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cedar Mountain Date 21 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.2	--	3.1	--	--	3.5	1	0	.5	--	
2.	3.2	--	14.2	--	--	22.0	5	30	1.0	--	
3.	3.3	5.3	31.3	--	--	23.7	3	2	2.0	5.0	
4.	3.1	--	2.1	--	--	1.6	1	0	.2	--	
5.	3.2	--	8.0	New Plant		3.3	1	0	1.0	--	
6.	3.2	5.2	16.0	--	--	12.7	2	0	1.5	1.5	
7.	3.3	5.3	30.5	--	--	26.5	4	5	2.5	5.5	
8.	3.3	5.3	19.5	--	--	20.0	3	2	1.5	3.0	
9.	3.3	5.3	33.0	--	--	70.0	4	10	3.0	6.0	
10.	3.3	5.4	43.9	--	--	71.0	4	10	3.0	10.5	
11.	3.2	--	16.7	--	--	24.2	5	65	1.0	--	
12.	3.2	--	3.3	--	--	5.5	1	0	1.0	--	
13.	3.2	--	2.6	--	--	1.5	1	0	.5	--	
14.	3.2	--	3.5	--	--	24.5	1	0	1.0	--	
15.	3.2	--	2.4	--	--	25.5	1	0	.5	--	
16.	3.2	5.2	25.3	--	--	23.0	3	10	2.0	2.0	Insect Damage
17.	3.3	5.3	39.0	--	--	65.6	4	15	3.0	3.5	
18.	3.2	--	2.6	--	--	1.4	1	0	1.0	--	
19.	3.2	5.3	35.2	--	--	28.2	5	60	2.0	7.0	
20.	3.2	--	5.3	--	--	4.6	1	0	1.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cedar Mountain Date 27 December 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER- CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	14.8	--	3.1	--	--	3.5	1	0	.5	--	
2.	14.8	--	14.2	--	--	22.0	5	30	1.0	--	
3.	14.8	15.9	31.3	--	--	23.7	3	2	2.0	5.0	
4.	14.8	--	2.1	--	--	1.6	1	0	.2	--	
5.	14.8	--	8.0	--	--	3.3	1	0	1.0	--	
6.	14.8	15.9	16.0	--	--	12.7	2	0	1.5	1.5	
7.	14.8	15.9	30.5	--	--	26.5	4	5	2.5	5.5	
8.	14.8	15.9	19.5	--	--	20.0	3	2	1.5	3.0	
9.	14.8	15.9	33.0	--	--	70.0	4	10	3.0	6.0	
10.	14.8	15.9	43.9	--	--	71.0	4	10	3.0	10.5	
11.	14.8	--	16.7	--	--	24.2	5	65	1.0	--	
12.	14.8	--	3.3	--	--	5.5	1	0	1.0	--	
13.	14.8	--	2.6	--	--	1.5	1	0	.5	--	
14.	14.8	--	3.5	--	--	24.5	1	0	1.0	--	
15.	14.8	--	2.4	--	--	25.5	1	0	.5	--	
16.	14.8	15.9	25.3	--	--	23.0	3	10	2.0	2.0	Insect damage
17.	14.8	15.9	39.0	--	--	65.6	4	15	3.0	3.5	
18.	14.8	--	2.6	--	--	1.4	1	0	1.0	--	
19.	14.8	15.9	35.2	--	--	28.2	5	60	2.0	7.0	
20.	14.8	--	5.3	--	--	4.6	1	0	1.5	--	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Cumberland #3 Date 12 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.2	15.0	--	--	3
2.	17.0	--	.3	18.4	--	--	1
3.	17.0	--	.2	19.8	--	--	2
4.	17.0	--	.2	15.1	--	--	1
5.	17.0	--	.2	35.0	--	--	1
6.	17.0	--	.2	19.6	--	--	1
7.	17.0	--	.3	17.3	--	--	1
8.	17.0	--	.2	26.5	--	--	1
9.	17.0	--	.2	28.2	--	--	2
10.	17.0	--	.2	33.2	--	--	3
11.	17.0	--	.2	18.8	--	--	3
12.	17.0	--	.3	24.2	--	--	1
13.	17.0	--	.2	32.4	--	--	3
14.	17.0	--	.1	8.5	--	--	2
15.	17.0	--	.2	26.8	--	--	2
16.	17.0	--	.2	21.3	--	--	2
17.	17.0	--	.2	22.7	--	--	2
18.	17.0	--	.3	22.8	--	--	2
19.	17.0	--	.2	14.0	--	--	1
20.	17.0	--	.2	22.0	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Cumberland #3 Date 24 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.3	--	.2	14.1	--	--	3	
2.	3.7	--	.3	15.2	--	--	1	
3.	4.0	--	.2	13.0	--	--	2	
4.	3.5	--	.2	12.4	--	--	1	
5.	--	--	--	--	--	--	--	Dead
6.	3.4	--	.2	12.0	--	--	1	
7.	3.7	--	.3	13.4	--	--	1	
8.	3.4	--	.2	19.0	--	--	1	
9.	3.8	--	.3	20.3	--	--	2	
10.	3.5	--	.3	19.7	--	--	3	
11.	4.0	--	.3	15.7	--	--	3	
12.	3.5	--	.2	15.1	--	--	1	
13.	3.6	--	.2	16.7	--	--	3	
14.	4.2	--	.2	14.5	--	--	2	
15.	3.2	--	.2	21.3	--	--	2	
16.	3.8	--	.3	16.7	--	--	2	
17.	3.6	--	.2	15.6	--	--	2	
18.	3.7	--	.3	20.0	--	--	2	
19.	4.1	--	.3	18.3	--	--	1	
20.	3.6	--	.2	17.4	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Cumberland #3 Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.2	--	.2	11.8	--	--	3	
2.	4.3	--	.3	20.4	--	--	1	
3.	4.2	--	.3	26.2	--	--	2	
4.	4.1	--	.2	16.1	--	--	1	
5.	--	--	--	--	--	--	--	Dead
6.	4.1	--	.2	15.3	--	--	1	
7.	4.2	--	.2	16.4	--	--	1	
8.	4.2	--	.2	19.4	--	--	1	
9.	4.2	--	.2	30.1	--	--	2	
10.	3.9	--	.2	20.6	--	--	3	
11.	4.3	--	.3	16.2	--	--	3	
12.	3.8	--	.2	12.0	--	--	1	
13.	3.9	--	.2	21.0	--	--	3	
14.	4.1	--	.2	13.5	--	--	2	
15.	3.9	--	.3	22.4	--	--	2	
16.	3.8	--	.2	11.2	--	--	2	
17.	4.2	5.1	.3	24.1	--	--	2	
18.	4.2	--	.3	21.0	--	--	2	
19.	3.9	--	.4	19.7	--	--	1	
20.	4.1	--	.3	23.8	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Cumberland #3 Date 20 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.2	--	.2	14.4	--	--	3	
2.	3.7	--	.3	20.0	--	--	1	
3.	3.7	--	.2	20.2	--	--	2	
4.	3.5	--	.2	16.3	--	--	1	
5.	--	--	--	--	--	--	--	Dead
6.	3.7	--	.2	17.1	--	--	1	
7.	3.6	--	.3	16.5	--	--	1	
8.	3.8	--	.2	21.0	--	--	1	
9.	3.8	--	.2	17.0	--	--	2	
10.	3.7	--	.2	18.8	--	--	3	
11.	3.8	--	.2	16.8	--	--	3	
12.	4.2	--	.3	20.0	--	--	1	
13.	3.8	--	.2	20.1	--	--	3	
14.	4.1	5.0	.2	13.6	--	--	2	
15.	3.8	--	.2	21.6	--	--	2	
16.	3.8	--	.3	19.0	--	--	2	
17.	2.9	--	.1	15.5	--	--	2	
18.	3.4	--	.3	20.2	--	--	2	
19.	4.2	--	.3	17.2	--	--	1	
20.	4.2	--	.3	24.7	--	--	1	

TABLE IV. (continued

AGROPYRON SPICATUM Study Area Cumberland #3 Date 12 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	17.0	--	--	--	4.5	.3	38.3	--	--	--		young
2.	17.0	15.9	--	--	11.0	.3	29.5	44.6	5	2		intermediate-sparse
3.	17.0	--	--	--	11.5	.3	24.0	--	--	--		intermediate-dense
4.	17.0	--	--	--	1.0	.2	21.3	--	--	--		young-dense
5.	17.0	--	--	--	5.0	.3	50.7	--	--	--		young-sparse
6.	17.0	--	--	--	4.5	.3	22.2	--	--	--		young-dense
7.	17.0	--	--	--	8.8	.2	18.2	--	--	--		intermediate-dense
8.	17.0	--	--	--	3.5	.2	21.2	--	--	--		young-sparse
9.	17.0	15.9	--	--	7.5	.3	29.3	33.7	4	1		young-intermediate
10.	17.0	--	--	--	2.0	.2	23.9	--	--	--		young-dense
11.	17.0	--	--	--	17.0	.3	42.8	--	--	--		mature-dense
12.	17.0	--	--	--	10.5	.3	25.2	--	--	--		intermediate-dense
13.	17.0	15.9	--	--	9.5	.3	38.8	51.0	5	1		intermediate-intermediate
14.	17.0	--	--	--	12.0	.2	13.2	--	--	--		intermediate-dense
15.	17.0	--	--	--	3.5	.2	19.1	--	--	--		young-dense
16.	17.0	15.9	--	--	4.0	.3	23.4	33.6	5	2		young-dense
17.	17.0	--	--	--	5.0	.3	38.5	--	--	--		young-dense
18.	17.0	--	--	--	7.0	.3	30.6	--	--	--		young-dense
19.	17.0	--	--	--	3.0	.2	19.0	--	--	--		young-dense
20.	17.0	15.9	--	--	5.2	.3	30.0	32.7	4	2		young-dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cumberland #3 Date 24 May 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	4.3	5.0	7.0	2.0	4.5	.3	26.9	--	--	--		young
2.	4.2	--	--	--	11.0	.2	22.8	--	--	--		intermediate-sparse
3.	4.2	--	12.5	10.5	11.5	.3	33.9	--	--	--		intermediate-dense
4.				dead								young-dense
5.	4.3	--	--	--	5.0	.3	25.2	--	--	--		young-sparse
6.	4.3	--	--	--	4.5	.3	21.2	--	--	--		young-dense
7.	4.4	5.0	10.5	7.0	8.8	.3	31.5	2.3	--	--		intermediate-dense
8.	4.0	--	--	--	3.5	.2	14.0	--	--	--		young-sparse
9.	4.3	5.0	--	--	7.5	.3	28.6	4.5	--	--		young-intermediate
10.	4.4	--	--	--	2.0	.3	22.2	--	--	--		young-dense
11.	4.3	--	--	--	17.0	.4	33.2	--	--	--		mature-dense
12.	4.4	5.0	--	--	10.5	.3	35.2	17.5	--	--		intermediate-dense
13.	4.3	5.0	--	--	9.5	.3	23.2	16.5	--	--		intermediate-intermediate
14.	4.4	5.0	--	--	12.0	.3	30.2	17.3	--	--		intermediate-dense
15.	4.1	--	5.0	2.0	3.5	.3	21.5	--	--	--		young-dense
16.	4.1	--	--	--	4.0	.3	17.8	--	--	--		young-dense
17.	4.3	5.0	--	--	5.0	.3	24.2	12.0	--	--		young-dense
18.	4.3	5.0	--	--	7.0	.3	19.5	10.3	--	--		young-dense
19.	4.3	--	--	--	3.0	.3	21.2	--	--	--		young-dense
20.	4.1	--	--	--	5.2	.3	27.4	--	--	--		young-dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Cumberland #3 Date 5 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.4	6.4	--	--	4.5	.3	37.1	32.0	6	23		young
2.	4.4	6.4	--	--	11.0	.3	35.0	37.3	6	11		intermediate-sparse
3.	4.3	6.1	--	--	11.5	.3	37.7	29.1	2	9		intermediate-dense
4.	4.3	--	--	--	--	.3	26.1	--	--	--		young-dense
5.	4.4	6.0	--	--	5.0	.4	45.8	35.7	--	--		young-sparse
6.	4.3	--	--	--	4.5	.3	20.7	--	--	--		young-dense
7.	4.3	6.2	--	--	8.8	.3	37.6	33.5	3	19		intermediate-dense
8.	4.1	--	--	--	3.5	.2	13.7	--	--	--		young-sparse
9.	4.4	6.3	--	--	7.5	.4	41.8	34.0	4	11		young-intermediate
10.	4.3	6.0	--	--	2.0	.3	27.7	17.8	--	3		young-dense
11.	4.3	6.1	--	--	17.0	.4	44.1	32.0	2	3		mature-dense
12.	4.3	6.3	--	--	10.5	.3	39.0	32.6	3	39		intermediate-dense
13.	4.3	5.9	--	--	9.5	.4	37.7	--	--	--		intermediate-intermediate
14.	4.4	6.3	--	--	12.0	.3	34.0	29.8	5	15		intermediate-dense
15.	4.3	--	--	--	3.5	.3	26.7	--	--	--		young-dense
16.	4.3	6.0	--	--	4.0	.3	18.5	12.5	--	3		young-dense
17.	4.3	6.2	--	--	5.0	.3	29.6	23.5	--	--		young-dense
18.	4.3	6.2	--	--	7.0	.3	29.3	24.0	3	8		young-dense
19.	4.2	--	--	--	3.0	.3	24.1	--	--	--		young-dense
20.	4.4	6.4	--	--	5.2	.4	44.9	44.6	--	--		young-dense

AGROPYRON SPICATUM   Study Area Cumberland #3   Date 20 June 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	4.5	7.0	--	--	4.5	.4	38.5	59.0	8	29		
2.	4.5	6.9	--	--	11.0	.3	34.3	49.7	7	11		
3.	4.6	7.2	--	--	11.5	.3	40.5	47.0	7	42		
4.	4.3	--	--	--	--	.3	21.4	--	--	--		
5.	4.5	7.1	--	--	5.0	.4	51.0	60.4	9	10		
6.	4.1	--	--	--	4.5	.2	20.5	--	--	--		
7.	4.6	7.2	--	--	8.8	.3	43.9	55.2	8	39		
8.	3.5	--	--	--	3.5	.2	13.6	--	--	--		
9.	4.5	7.1	--	--	7.5	.4	41.6	53.2	7	18		
10.	4.4	7.0	--	--	2.0	.3	31.1	35.2	6	3		
11.	4.5	7.0	--	--	17.0	.3	44.8	50.0	7	49		mature-dense
12.	4.5	7.1	--	--	10.5	.3	44.0	56.0	7	64		
13.	4.5	7.1	--	--	9.5	.3	46.0	55.2	8	7		
14.	4.5	7.0	--	--	12.0	.3	33.8	41.5	5	14		insect damage
15.	4.4	7.0	--	--	3.5	.3	29.5	28.2	5	3		
16.	4.4	6.9	--	--	4.0	.3	22.8	38.7	5	4		
17.	4.5	7.0	--	--	5.0	.3	35.2	43.8	6	6		
18.	4.5	7.1	--	--	7.0	.2	30.9	38.4	5	9		
19.	4.3	--	--	--	3.0	.3	24.5	--	--	--		
20.	4.6	7.2	--	--	5.2	.3	43.0	58.0	7	22		

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cumberland #3 Date 12 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.9	--	45.0	--	--	25.5	3	15	--	--
2.	14.9	--	29.0	--	--	16.5	4	25	--	--
3.	14.9	--	27.6	--	--	14.0	2	2	--	--
4.	14.9	15.9	42.2	--	--	33.0	4	2	--	--
5.	14.9	15.9	55.5	--	--	49.5	4	30	--	--
6.	14.9	--	29.3	--	--	29.1	4	20	--	--
7.	14.9	15.9	33.5	--	--	26.0	3	10	--	--
8.	14.9	15.9	57.0	--	--	47.7	5	40	--	--
9.	14.9	--	36.0	--	--	20.0	5	30	--	--
10.	14.9	--	73.0	--	--	60.0	5	60	--	--
11.	14.9	15.9	32.3	--	--	26.0	5	30	--	--
12.	14.9	--	24.3	--	--	14.5	3	15	--	--
13.	14.9	15.9	71.0	--	--	109.5	5	20	--	--
14.	14.9	15.9	59.3	--	--	41.5	4	15	--	--
15.	14.9	15.9	60.2	--	--	40.5	5	25	--	--
16.	14.9	15.9	53.2	--	--	55.9	5	20	--	--
17.	14.9	15.9	64.8	--	--	29.0	4	80	--	--
18.	14.9	15.9	46.0	--	--	37.5	4	15	--	--
19.	14.9	15.9	54.7	--	--	37.0	5	40	--	--
20.	14.9	15.9	43.5	--	--	44.5	3	15	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cumberland #3 Date 24 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	2.0	--	45.0	--	--	25.5	3	15	--	--	
2.	2.0	--	29.0	--	--	16.5	4	25	--	--	
3.	1.1	--	27.6	--	--	14.0	2	2	--	--	
4.	2.0	--	42.2	--	--	33.0	4	2	--	--	
5.	1.5	--	55.5	--	--	49.5	4	30	--	--	
6.	1.5	--	29.3	--	--	29.1	4	20	--	--	
7.	2.0	--	33.5	--	--	26.0	3	10	--	--	
8.	1.5	--	57.0	--	--	47.7	5	40	--	--	
9.	1.5	--	36.5	--	--	20.0	5	30	--	--	
10.	1.2	--	73.0	--	--	60.0	5	60	--	--	
11.	1.2	--	32.3	--	--	26.0	5	30	--	--	
12.	1.2	--	24.3	--	--	14.5	3	15	--	--	
13.	2.0	--	71.0	--	--	109.5	5	20	--	--	
14.	2.2	--	59.2	--	--	41.5	4	15	--	--	
15.	1.5	--	60.2	--	--	40.5	5	25	--	--	
16.	2.0	--	53.2	--	--	55.9	5	20	--	--	
17.	1.5	--	64.8	--	--	29.0	4	80	--	--	
18.	1.7	--	46.0	--	--	37.5	4	15	--	--	
19.	2.0	--	54.7	--	--	37.0	5	40	--	--	
20.	1.5	--	43.5	--	--	44.5	3	15	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cumberland #3 Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.1	42.0	--	--	--	3	15	2.5	4.0
2.	3.2	--	31.5	--	--	--	4	25	1.5	--
3.	3.2	--	28.6	--	--	--	2	2	2.0	--
4.	3.3	5.1	41.7	--	--	--	4	2	3.0	4.0
5.	3.2	5.0	55.6	--	--	--	4	30	1.5	2.5
6.	3.2	--	28.5	--	--	--	4	20	1.5	--
7.	3.3	5.1	37.5	--	--	--	3	10	2.5	4.0
8.	3.1	--	56.7	--	--	--	5	40	1.5	--
9.	3.3	5.1	37.0	--	--	--	5	30	1.5	2.0
10.	3.2	--	74.0	--	--	--	5	60	2.0	--
11.	3.2	--	34.8	--	--	--	5	30	1.0	--
12.	3.2	--	20.8	--	--	--	3	15	2.0	--
13.	3.3	5.1	67.8	--	--	--	5	20	2.0	6.0
14.	3.3	5.2	65.4	--	--	--	4	15	2.5	5.0
15.	3.3	5.1	61.0	--	--	--	5	25	2.0	4.0
16.	3.3	5.2	53.0	--	--	--	5	20	2.5	4.0
17.	3.2	--	65.9	--	--	--	4	80	1.5	--
18.	3.3	5.1	43.5	--	--	--	4	15	1.0	3.0
19.	3.3	5.1	56.0	--	--	--	5	40	2.0	3.5
20.	3.3	--	43.7	--	--	--	3	15	2.5	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Cumberland #3 Date 20 June 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	3.4	5.4	46.4	--	--	25.5	3	15	4.0	8.0	
2.	3.3	5.3	31.5	--	--	16.5	4	25	2.5	4.0	
3.	3.3	5.3	31.5	--	--	14.0	2	2	2.0	4.0	
4.	3.4	5.4	48.7	--	--	33.0	4	2	3.5	10.5	
5.	3.3	5.3	64.0	--	--	49.5	4	30	3.0	7.0	
6.	3.3	5.3	32.0	--	--	29.1	4	20	3.0	4.5	
7.	3.4	5.4	41.1	--	--	26.0	3	10	3.0	9.0	
8.	3.2	5.2	57.7	--	--	47.7	5	40	3.0	7.0	dying
9.	3.2	5.2	39.8	--	--	20.0	5	30	2.5	5.2	
10.	3.3	5.3	71.8	--	--	60.0	5	60	2.5	6.5	
11.	3.3	--	35.0	--	--	26.0	5	30	3.5	--	
12.	3.3	--	23.4	--	--	14.5	3	15	5.0	--	
13.	3.4	5.4	73.5	--	--	109.5	5	20	4.0	10.0	
14.	3.4	5.4	69.5	--	--	41.5	4	15	3.0	10.5	
15.	3.2	5.2	59.4	--	--	40.5	5	25	2.5	4.0	
16.	3.4	5.4	57.5	--	--	55.9	5	20	4.0	12.5	
17.	3.2	5.3	64.6	--	--	29.0	4	80	2.5	6.0	
18.	3.3	5.3	50.0	--	--	37.5	4	15	2.5	7.5	
19.	3.4	5.4	63.5	--	--	37.0	5	40	3.0	8.0	
20.	3.4	5.3	42.7	--	--	44.5	3	15	6.0	8.0	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 22 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.							2
2.	NO	NO	--	--	--	--	2
3.	NEW	NEW	--	--	--	--	2
4.	GROWTH	GROWTH	--	--	--	--	2
5.			--	--	--	--	2
6.			--	--	--	--	4
7.			--	--	--	--	1
8.			--	--	--	--	1
9.			--	--	--	--	1
10.			--	--	--	--	2
11.			--	--	--	--	1
12.			--	--	--	--	1
13.			--	--	--	--	1
14.			--	--	--	--	1
15.			--	--	--	--	1
16.			--	--	--	--	2
17.			--	--	--	--	1
18.			--	--	--	--	2
19.			--	--	--	--	1
20.			--	--	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 2 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	--	--	--	--	2
2.	1.1	--	.1	2.4	--	--	3
3.	1.1	--	.1	2.3	--	--	4
4.	17.0	--	--	--	--	--	2
5.	1.1	--	.1	1.6	--	--	1
6.	1.0	--	.1	0.8	--	--	3
7.	17.0	--	--	--	--	--	1
8.	17.0	--	--	--	--	--	1
9.	17.0	--	--	--	--	--	1
10.	1.2	--	.1	3.1	--	--	2
11.	1.2	--	.1	3.0	--	--	1
12.	1.0	--	.1	1.0	--	--	1
13.	17.0	--	--	--	--	--	1
14.	17.0	--	--	--	--	--	3
15.	1.1	--	.1	2.2	--	--	2
16.	1.2	--	.1	3.1	--	--	2
17.	1.3	--	.1	4.5	--	--	2
18.	17.0	--	--	--	--	--	2
19.	1.1	--	.1	2.4	--	--	5
20.	1.1	--	.1	1.5	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 29 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.2	--	.2	6.3	--	--	3	
2.	2.2	--	.2	2.3	--	--	3	eaten (grasshoppers)
3.	2.3	--	.2	5.3	--	--	4	
4.	2.1	--	.2	3.1	--	--	2	eaten
5.	2.2	--	.2	4.0	--	--	1	eaten
6.	2.0	--	.1	3.8	--	--	3	
7.	2.2	--	.2	5.1	--	--	1	
8.	2.1	--	.1	3.9	--	--	1	
9.	2.0	--	.1	2.0	--	--	2	
10.	2.0	--	.1	1.5	--	--	2	eaten
11.	2.0	--	.1	2.5	--	--	1	
12.	2.0	--	.1	4.5	--	--	1	
13.	1.2	--	.1	2.2	--	--	2	
14.	2.1	--	.2	2.2	--	--	3	eaten
15.	2.1	--	.2	5.1	--	--	2	
16.	2.2	--	.2	6.4	--	--	2	
17.	2.1	--	.1	5.7	--	--	2	
18.	1.2	--	.1	1.5	--	--	1	
19.	2.2	--	.2	5.5	--	--	5	tips have frozen
20.	1.1	--	.1	2.1	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	3.3	--	.3	15.7	--	--	3
2.	3.2	--	.2	9.2	--	--	3
3.	3.3	--	.3	16.6	--	--	4
4.	3.2	--	.3	16.2	--	--	2
5.	3.5	--	.3	15.7	--	--	1
6.	3.2	--	.2	10.0	--	--	3
7.	3.0	--	.2	12.0	--	--	1
8.	2.5	--	.1	5.0	--	--	1
9.	2.9	--	.1	14.0	--	--	2
10.	3.1	--	.2	10.9	--	--	2
11.	3.1	--	.1	8.7	--	--	1
12.	2.7	--	.1	6.0	--	--	1
13.	3.2	--	.3	18.1	--	--	2
14.	3.1	--	.2	11.8	--	--	3
15.	3.3	--	.2	8.7	--	--	2
16.	2.7	--	.1	11.4	--	--	2
17.	2.6	--	.1	7.7	--	--	2
18.	3.1	--	.1	6.3	--	--	1
19.	3.3	--	.2	10.6	--	--	5
20.	3.2	--	.1	3.9	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.5	--	.3	22.1	--	--	3	
2.	3.8	--	.2	14.8	--	--	3	
3.	4.2	--	.3	23.7	--	--	4	
4.	4.4	--	.3	23.0	--	--	2	
5.	4.3	--	.4	24.6	--	--	1	
6.	3.8	--	.2	16.0	--	--	3	
7.	3.9	--	.3	16.7	--	--	1	
8.	4.0	--	.1	11.1	--	--	1	
9.	4.6	--	.3	15.9	--	--	2	
10.	4.6	--	.3	12.2	--	--	2	eaten
11.	3.7	--	.1	11.5	--	--	1	
12.	3.8	--	.2	12.2	--	--	1	
13.	4.6	--	.2	13.0	--	--	2	
14.	4.0	--	.2	18.5	--	--	3	
15.	4.3	--	.3	18.7	--	--	2	
16.	3.8	--	.2	13.7	--	--	2	
17.	4.0	--	.2	13.9	--	--	2	
18.	3.2	--	.1	9.7	--	--	1	
19.	3.8	--	.2	16.5	--	--	5	
20.	2.3	--	.1	11.5	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	4.3	5.0	.3	22.4	--	--	3
2.	4.2	--	.2	15.1	--	--	3
3.	4.3	--	.2	23.7	--	--	4
4.	4.3	--	.3	20.6	--	--	2
5.	4.4	--	.3	26.7	--	--	1
6.	4.2	--	.2	17.2	--	--	3
7.	4.2	--	.3	18.8	--	--	1
8.	3.8	--	.1	11.6	--	--	1
9.	4.3	--	.2	16.4	--	--	2
10.	4.2	--	.3	13.4	--	--	2
11.	4.1	--	.1	13.7	--	--	1
12.	4.1	--	.2	14.5	--	--	1
13.	4.3	--	.2	14.8	--	--	2
14.	4.4	--	.2	17.8	--	--	3
15.	4.2	--	.2	14.1	--	--	2
16.	4.2	--	.2	14.3	--	--	2
17.	14.0	--	.2	14.1	--	--	2
18.	3.7	--	.1	9.5	--	--	1
19.	4.3	--	.2	16.9	--	--	5
20.	4.2	--	.2	15.3	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 18 June 1964

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.5	5.0	.3	24.5	--	--	3	
2.	4.2	--	.2	14.6	--	--	3	
3.	4.3	--	.3	24.2	--	--	4	
4.	4.2	--	.3	23.1	--	--	2	
5.	4.4	5.0	.3	24.6	--	--	1	
6.	4.3	--	.2	17.1	--	--	3	
7.	4.2	--	.3	18.7	--	--	1	
8.	4.5	--	.1	11.2	--	--	1	
9.	4.3	--	.2	15.4	--	--	2	
10.	4.3	--	.2	13.7	--	--	2	
11.	4.1	--	.2	14.0	--	--	1	
12.	4.3	--	.2	13.2	--	--	1	
13.	4.3	--	.2	14.9	--	--	2	
14.	4.3	--	.3	18.3	--	--	3	
15.	4.5	--	.2	13.9	--	--	2	
16.	4.3	--	.2	14.2	--	--	2	
17.	4.8	--	.2	14.2	--	--	2	
18.	3.8	--	.1	9.8	--	--	1	
19.	4.1	--	.2	16.5	--	--	5	
20.	4.2	--	.1	11.5	--	--	1	dying

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 11 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	14.3	--	.3	24.0	--	--	3
2.	14.2	--	.1	14.7	--	--	3
3.	14.2	--	.2	23.5	--	--	4
4.	14.2	--	.3	22.9	--	--	2
5.	14.1	5.1	.3	24.8	--	--	1
6.	14.2	--	.2	16.9	--	--	3
7.	14.2	--	.3	18.5	--	--	1
8.	14.4	--	.1	11.2	--	--	1
9.	14.2	--	.2	14.7	--	--	2
10.	14.2	5.1	.2	13.4	--	--	2
11.	14.3	--	.2	14.0	--	--	1
12.	14.3	--	.2	13.0	--	--	1
13.	14.3	--	.2	15.1	--	--	2
14.	14.2	5.1	.2	18.0	--	--	3
15.	14.2	--	.2	14.4	--	--	2
16.	14.2	--	.2	14.1	--	--	2
17.	14.2	5.1	.2	14.6	--	--	2
18.	14.1	--	.2	13.1	--	--	1
19.	14.2	--	.3	19.5	--	--	5
20.	14.9	--	.1	11.6	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 30 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.3	--	.2	24.0	--	--	3	
2.	14.5	--	.2	14.9	--	--	3	Flower stalks are failing
3.	14.9	--	.2	21.0	--	--	4	to develop
4.	14.6	--	.2	22.8	--	--	2	
5.	14.7	--	.2	16.7	--	--	1	
6.	14.5	--	.1	16.4	--	--	3	
7.	14.8	--	.1	11.5	--	--	1	
8.	14.5	--	.2	15.6	--	--	1	
9.	14.9	--	.2	11.7	--	--	2	
10.	14.8	--	.2	13.8	--	--	2	
11.	14.4	--	.1	13.4	--	--	1	
12.	14.6	--	.1	12.6	--	--	1	
13.	14.6	--	.2	14.6	--	--	2	
14.	14.6	--	.2	17.0	--	--	3	
15.	14.5	--	.2	14.1	--	--	2	
16.	14.6	--	.2	14.2	--	--	2	
17.	14.5	--	.1	14.8	--	--	2	
18.	14.8	--	.1	12.5	--	--	1	
19.	14.7	--	.1	17.0	--	--	5	
20.	14.7	--	.2	15.2	--	--	1	Dead (new plant)

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 23 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.8	--	.2	24.7	--	--	3	
2.	14.9	--	.2	14.5	--	--	3	Flower stalks have failed
3.	14.9	--	.2	24.5	--	--	4	to develop
4.	14.8	--	.2	23.0	--	--	2	
5.	14.9	--	.3	24.7	--	--	1	
6.	14.8	--	.2	17.2	--	--	3	
7.	14.8	--	.2	15.3	--	--	1	
8.	14.9	--	.1	11.5	--	--	1	
9.	14.9	--	.2	16.1	--	--	2	
10.	14.9	--	.2	12.6	--	--	2	
11.	14.9	--	.1	6.0	--	--	1	
12.	14.9	--	.2	12.4	--	--	1	
13.	14.9	--	.3	19.0	--	--	2	
14.	14.9	--	.2	18.0	--	--	3	
15.	14.9	--	.2	14.1	--	--	2	
16.	14.8	--	.1	14.0	--	--	2	
17.	14.8	--	.2	15.0	--	--	2	
18.	14.9	--	.1	12.3	--	--	1	
19.	14.9	--	.2	17.4	--	--	5	
20.	14.9	--	.2	16.6	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 20 Sept 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	14.9	--	.2	24.7	--	--	3
2.	14.9	--	.2	14.5	--	--	3
3.	14.9	--	.2	24.5	--	--	4
4.	14.9	--	.2	23.0	--	--	2
5.	16.0	--	.3	24.7	--	--	1
6.	14.9	--	.2	17.2	--	--	3
7.	14.9	--	.2	15.3	--	--	1
8.	14.9	--	.1	11.5	--	--	1
9.	14.9	--	.2	16.1	--	--	2
10.	14.9	--	.2	12.6	--	--	2
11.	14.9	--	.1	6.0	--	--	1
12.	14.9	--	.2	12.4	--	--	1
13.	16.0	--	.2	19.0	--	--	2
14.	16.0	--	.2	18.0	--	--	3
15.	14.9	--	.2	14.1	--	--	2
16.	14.9	--	.1	14.0	--	--	2
17.	14.9	--	.2	15.0	--	--	2
18.	14.9	--	.1	12.3	--	--	1
19.	14.9	--	.2	17.4	--	--	5
20.	14.9	--	.2	16.6	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 15 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	16.0	--	.2	24.7	--	--	3
2.	16.1	--	.2	14.5	--	--	3
3.	16.1	--	.2	24.5	--	--	4
4.	16.0	--	.2	23.0	--	--	2
5.	16.1	--	.3	24.7	--	--	1
6.	16.0	--	.2	17.2	--	--	3
7.	16.0	--	.2	15.3	--	--	1
8.	16.1	--	.1	11.5	--	--	1
9.	16.1	--	.2	16.1	--	--	2
10.	16.1	--	.2	12.6	--	--	2
11.	11.1	--	.1	6.0	--	--	1
12.	16.1	--	.2	12.4	--	--	1
13.	16.1	--	.3	19.0	--	--	2
14.	16.1	--	.2	18.0	--	--	3
15.	16.1	--	.2	14.1	--	--	2
16.	16.0	--	.1	14.0	--	--	2
17.	16.0	--	.2	15.0	--	--	2
18.	16.1	--	.1	12.3	--	--	1
19.	16.1	--	.2	17.4	--	--	5
20.	16.1	--	.2	16.6	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 22 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.2	24.7	--	--	3
2.	17.0	--	.2	14.5	--	--	3
3.	17.0	--	.2	24.5	--	--	4
4.	17.0	--	.2	23.0	--	--	2
5.	16.5	--	.3	24.7	--	--	1
6.	17.0	--	.2	17.2	--	--	3
7.	17.0	--	.2	15.3	--	--	1
8.	17.0	--	.1	11.5	--	--	1
9.	17.0	--	.2	16.1	--	--	2
10.	17.0	--	.2	12.6	--	--	2
11.	17.0	--	.1	16.0	--	--	1
12.	17.0	--	.2	12.4	--	--	1
13.	17.0	--	.3	19.0	--	--	2
14.	17.0	--	.2	18.0	--	--	3
15.	17.0	--	.2	14.1	--	--	2
16.	17.0	--	.1	14.0	--	--	2
17.	17.0	--	.2	15.0	--	--	2
18.	17.0	--	.1	17.3	--	--	1
19.	17.0	--	.2	17.4	--	--	5
20.	17.0	--	.2	16.6	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 19 Dec 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.2	24.7	--	--	3
2.	17.0	--	.2	14.5	--	--	3
3.	17.0	--	.2	24.5	--	--	4
4.	17.0	--	.2	23.0	--	--	2
5.	17.0	--	.3	24.7	--	--	1
6.	17.0	--	.2	17.2	--	--	3
7.	17.0	--	.2	15.3	--	--	1
8.	17.0	--	.1	11.5	--	--	1
9.	17.0	--	.2	16.1	--	--	2
10.	17.0	--	.2	12.6	--	--	2
11.	17.0	--	.1	6.0	--	--	1
12.	17.0	--	.2	12.4	--	--	1
13.	17.0	--	.3	19.0	--	--	2
14.	17.0	--	.2	18.0	--	--	3
15.	17.0	--	.2	14.1	--	--	2
16.	17.0	--	.1	14.0	--	--	2
17.	17.0	--	.2	15.0	--	--	2
18.	17.-	--	.1	12.3	--	--	1
19.	17.0	--	.2	17.4	--	--	5
20.	17.0	--	.2	16.6	--	--	1

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 31 Jan 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH.	WIDTH	DIAM.							
			cm.	cm.	cm.	cm.	cm.	cm.				
1.	17.0	17.0	--	--	7.5	.3	18.0	35.4	6	19		intermediate -intermediate
2.	17.0	17.0	--	--	28.3	.3	14.0	39.0	5	146		mature-dense
3.	17.0	17.0	--	--	6.0	.3	12.0	49.0	6	9		young-dense
4.	17.0	17.0	--	--	24.0	.3	10.0	53.0	8	121		mature-dense
5.	17.0	17.0	--	--	18.5	.3	12.0	44.0	6	46		mature-dense
6.	17.0	17.0	--	--	10.0	.3	12.0	45.7	6	19		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued

AGROPYRON SPICATUM Study Area Demer Date 22 Feb 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	17.0	17.0	--	--	7.5	.3	18.0	35.4	6			intermediate-intermediate
2.	17.0	17.0	--	--	28.3	.3	14.0	39.0	5			mature-dense
3.	17.0	17.0	--	--	6.0	.3	12.0	49.0	6			young-dense
4.	17.0	17.0	--	--	24.0	.3	10.0	53.0	8			mature-dense
5.	17.0	17.0	--	--	18.5	.3	12.0	44.0	6			mature-dense
6.	17.0	17.0	--	--	10.0	.3	12.0	45.7	6			intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 7 March 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	1.1	--	--	--	7.5	.1	2.5	--	--	--		intermediate-intermediate
2.	1.2	--	--	--	28.3	.1	4.0	--	--	--		mature-dense
3.	1.2	--	--	--	6.0	.1	4.2	--	--	--		young-dense
4.	1.2	--	--	--	24.0	.1	2.8	--	--	--		mature-dense
5.	1.2	--	--	--	18.5	.1	4.2	--	--	--		mature-dense
6.	1.2	--	--	--	10.0	.1	3.5	--	--	--		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 29 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	2.3	--	--	--	7.5	.3	6.3	--	--	--		eaten by
2.	2.3	--	--	--	28.3	.3	5.8	--	--	--		grasshoppers
3.	2.4	--	--	--	6.0	.3	6.2	--	--	--		and worms
4.	2.4	--	--	--	24.0	.3	6.5	--	--	--		
5.	2.3	--	--	--	18.5	.3	4.5	--	--	--		
6.	2.2	--	--	--	10.0	.2	4.3	--	--	--		
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 26 April 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	3.2	--	--	--	7.5	.3	10.0	--	--	--		intermediate-intermediate
2.	3.0	--	--	--	28.5	.3	20.6	--	--	--		mature-dense
3.	3.3	--	--	--	6.5	.3	15.8	--	--	--		young-dense
4.	3.2	--	--	--	25.0	.3	20.7	--	--	--		mature-dense
5.	3.3	--	--	--	19.0	.3	15.7	--	--	--		mature-dense
6.	3.2	--	--	--	10.5	.3	15.0	--	--	--		mature-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 21 May 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	4.8	--	--	--	8.0	.4	24.8	--	--	--		intermediate-intermediate
2.	4.9	--	--	--	28.5	.4	28.2	--	--	--		mature-dense
3.	5.0	--	--	--	6.5	.3	24.8	--	--	--		young-dense
4.	4.9	--	--	--	25.0	.4	30.0	--	--	--		mature-dense
5.	4.9	--	--	--	19.0	.3	23.3	--	--	--		mature-dense
6.	5.0	--	--	--	10.5	.4	31.9	--	--	--		mature-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 5 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.4	6.3	--	--	8.0	.3	25.2	27.5	7	17		intermediate-intermediate
2.	4.7	6.7	--	--	28.5	.4	36.1	44.0	9	83		mature-dense
3.	4.4	6.6	--	--	6.5	.3	32.0	37.0	4	5		young-dense
4.	4.7	6.7	--	--	25.0	.3	36.7	39.5	7	62		mature-dense
5.	4.5	6.6	--	--	19.0	.3	34.2	38.4	6	58		mature-dense
6.	4.4	6.5	--	--	10.5	.3	26.5	33.9	5	14		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 18 June 1974

PLANT No.	PHENO. STAGE SCORE VEG.	REPR.	CLUMP LGTH. cm.	WIDTH cm.	DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	4.5	7.1	--	--	8.0	.3	26.5	40.1	7	22		intermediate-intermediate
2.	4.4	7.0	--	--	28.5	.4	34.4	43.1	10	90		mature-dense
3.	4.5	7.1	--	--	6.5	.3	32.2	47.4	5			young-dense
4.	4.5	7.2	--	--	25.0	.3	37.6	51.5	7	75		mature-dense
5.	4.5	7.2	--	--	19.0	.3	36.5	49.4	7	82		intermediate-dense
6.	4.4	7.0	--	--	10.5	.3	36.0	54.3	7	19		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 11 July 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	14.2	11.2	--	--	8.5	.3	23.7	38.1	7	19		
2.	14.2	11.4	--	--	29.0	.4	33.5	42.5	9	90		Insect damage
3.	14.2	11.4	--	--	7.0	.3	28.1	37.2	5	7		Insect damage
4.	14.2	11.4	--	--	25.5	.4	45.2	55.9	7	71		
5.	14.3	11.3	--	--	19.5	.3	34.8	47.1	7	78		
6.	14.4	11.4	--	--	11.0	.2	38.9	56.9	7	15		
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 30 July 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	14.4	13.8	--	--	8.5	.3	28.2	39.0	6	10		intermediate-intermediate
2.	14.5	15.8	--	--	29.0	.4	31.5	38.3	8	81		mature-dense
3.	14.5	15.0	--	--	7.0	.2	32.6	48.7	6	5		young-dense
4.	14.6	15.1	--	--	25.5	.3	36.3	51.6	7	65		mature-dense
5.	14.5	15.2	--	--	19.5	.2	39.6	53.0	7	71		mature-dense
6.	14.6	15.1	--	--	11.0	.2	36.7	49.5	7	16		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 23 Aug 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	14.6	15.5	--	--	8.5	.3	28.2	39.5	6	10		intermediate-dense
2.	14.8	15.9	--	--	29.0	.4	31.5	39.4	8	81		mature-dense
3.	14.8	15.6	--	--	7.0	.3	32.6	49.3	6	5		young-dense
4.	14.8	15.4	--	--	25.5	.3	36.3	52.4	7	65		mature-dense
5.	14.8	15.7	--	--	19.5	.3	39.6	53.0	7	71		mature-dense
6.	14.8	15.8	--	--	11.0	.3	36.7	49.3	7	16		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 20 Sept 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	14.8	15.6	--	--	8.5	.3	28.2	39.5	6	10		seed heads
2.	14.9	15.9	--	--	29.0	.4	31.5	39.0	8	81		dying
3.	14.9	15.7	--	--	7.0	.3	32.6	49.0	6	5		before
4.	14.9	15.6	--	--	25.5	.3	36.3	52.5	7	65		maturity
5.	14.9	15.7	--	--	19.5	.3	39.6	53.0	7	71		
6.	14.9	15.8	--	--	11.0	.3	36.7	49.5	7	16		
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 15 Oct 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	16.2	15.7	--	--	8.5	.3	28.2	39.5	6	10		
2.	16.2	15.9	--	--	29.0	.3	31.5	39.5	8	81		
3.	16.2	15.8	--	--	7.0	.3	32.6	49.5	6	5		
4.	16.5	15.6	--	--	25.5	.2	36.3	52.0	7	65		
5.	16.1	15.8	--	--	19.5	.2	39.6	53.0	7	71		
6.	16.5	15.9	--	--	11.0	.2	36.7	49.5	7	16		
7.												
8.	Most seed heads have died before maturity											
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 22 Nov 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	16.5	15.7	--	--	8.5	.3	28.2	39.5	6	10		Died before maturity
2.	16.5	15.9	--	--	29.0	.3	31.5	39.5	8	81		
3.	16.5	15.8	--	--	7.0	.3	32.6	49.5	6	5		Died before maturity
4.	17.0	15.6	--	--	25.5	.2	36.3	52.3	7	65		Died before maturity
5.	16.3	15.8	--	--	19.5	.2	39.6	53.0	7	71		
6.	17.0	15.8	--	--	11.0	.2	36.7	49.7	7	16		
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Demer Date 19 Dec 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	17.0	--	--	--	8.5	.2	28.2	39.5	6	10		intermediate-intermediate
2.	17.0	--	--	--	29.0	.2	31.5	39.5	8	81		mature-dense
3.	17.0	--	--	--	7.0	.2	32.6	49.5	6	5		young-dense
4.	17.0	--	--	--	25.5	.2	36.3	52.3	7	65		mature-dense
5.	17.0	--	--	--	19.5	.2	39.6	53.0	7	71		mature-dense
6.	17.0	--	--	--	11.0	.2	36.7	49.7	7	16		intermediate-dense
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 31 Jan 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	14.8	15.9	16.0	--	--	14.5	2	0	--	--	Late summers
2.	14.8	15.9	23.0	--	--	34.5	3	0	--	--	Leaves
3.	14.8	--	17.0	--	--	36.0	4	5	--	--	Shedding
4.	14.8	15.7	11.0	--	--	37.5	4	30	--	--	
5.	14.8	15.7	17.0	--	--	43.2	4	20	--	--	
6.	14.8	15.8	28.0	--	--	36.9	4	5	--	--	
7.	14.8	--	9.0	--	--	10.1	2	0	--	--	
8.	14.8	15.8	23.0	--	--	50.1	4	5	--	--	
9.	14.8	15.9	25.0	--	--	28.6	3	0	--	--	
10.	14.8	15.7	32.0	--	--	49.5	4	2	--	--	
11.	14.8	15.7	25.0	--	--	41.8	4	5	--	--	
12.	14.8	15.7	22.5	--	--	44.2	4	3	--	--	
13.	14.8	15.9	36.0	--	--	59.5	5	35	--	--	
14.	14.8	15.8	32.0	--	--	21.5	5	60	--	--	
15.	14.8	15.9	41.0	--	--	38.9	5	40	--	--	
16.	14.8	--	16.5	--	--	18.9	5	55	--	--	
17.	14.8	--	15.0	--	--	28.9	3	2	--	--	
18.	14.8	15.7	24.0	--	--	47.9	4	10	--	--	
19.	14.8	--	21.0	--	--	39.9	4	5	--	--	
20.	14.8	--	11.5	--	--	12.3	2	5	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 22 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.8	15.9	16.0	--	--	14.5	2	0	--	--
2.	14.8	--	23.0	--	--	34.5	3	0	--	--
3.	14.8	15.9	17.0	--	--	36.0	4	5	--	--
4.	14.8	15.9	11.0	--	--	37.5	4	30	--	--
5.	14.8	15.9	17.0	--	--	43.3	4	20	--	--
6.	14.8	15.9	28.0	--	--	36.9	4	5	--	--
7.	14.8	--	9.0	--	--	10.1	2	0	--	--
8.	14.8	15.9	23.0	--	--	50.1	4	5	--	--
9.	14.8	15.9	25.0	--	--	28.6	3	0	--	--
10.	14.8	15.9	32.0	--	--	49.5	4	2	--	--
11.	14.8	15.9	25.0	--	--	41.8	4	5	--	--
12.	14.8	15.9	22.5	--	--	44.2	4	3	--	--
13.	14.8	15.9	36.0	--	--	59.5	5	35	--	--
14.	14.8	15.9	32.0	--	--	21.5	5	60	--	--
15.	14.8	15.9	41.0	--	--	38.9	5	40	--	--
16.	14.8	--	16.5	--	--	18.9	5	55	--	--
17.	14.8	--	15.0	--	--	28.9	3	2	--	--
18.	14.8	15.9	24.0	--	--	47.9	4	10	--	--
19.	14.8	--	21.0	--	--	39.9	4	5	--	--
20.	14.8	--	11.5	--	--	12.3	2	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 7 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PERCENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	14.8	15.9	16.0	--	--	14.5	2	0	--	--	
2.	14.8	15.9	23.0	--	--	34.5	3	0	--	--	
3.	14.8	--	17.0	--	--	36.0	4	5	--	--	
4.	14.8	15.9	11.0	--	--	37.5	4	30	--	--	
5.	14.8	15.9	17.0	--	--	43.3	4	20	--	--	
6.	14.8	15.9	28.0	--	--	36.9	4	5	--	--	
7.	14.8	--	9.0	--	--	10.1	2	0	--	--	
8.	14.8	15.9	23.0	--	--	50.1	4	5	--	--	
9.	14.8	15.9	25.0	--	--	28.6	3	0	--	--	
10.	14.8	15.9	32.0	--	--	49.5	4	2	--	--	
11.	14.8	15.9	25.0	--	--	41.8	4	5	--	--	
12.	14.8	15.9	22.5	--	--	44.2	4	3	--	--	
13.	14.8	15.9	36.0	--	--	59.5	5	35	--	--	
14.	14.8	15.9	32.0	--	--	21.5	5	60	--	--	
15.	14.8	15.9	41.0	--	--	38.9	5	40	--	--	
16.	14.8	--	16.5	--	--	18.9	5	55	--	--	
17.	14.8	--	15.0	--	--	28.9	3	2	--	--	
18.	14.8	15.9	24.0	--	--	47.9	4	10	--	--	
19.	14.8	--	21.0	--	--	39.9	4	5	--	--	
20.	14.8	--	11.5	--	--	12.3	2	5	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 29 March 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	No	New	16.0	--	--	14.5	2	0	--	--
2.	Growth		23.0	--	--	34.5	3	0	--	--
3.			17.0	--	--	36.0	4	5	--	--
4.			11.0	--	--	37.5	4	30	--	--
5.			17.0	--	--	43.3	4	20	--	--
6.			28.0	--	--	36.9	4	5	--	--
7.			9.0	--	--	10.1	2	0	--	--
8.			23.0	--	--	50.1	4	5	--	--
9.			25.0	--	--	28.6	3	0	--	--
10.			32.0	--	--	49.5	4	2	--	--
11.			25.0	--	--	41.8	4	5	--	--
12.			22.5	--	--	44.2	4	3	--	--
13.			36.0	--	--	59.5	5	35	--	--
14.			32.0	--	--	21.5	5	60	--	--
15.			41.0	--	--	38.9	5	40	--	--
16.			16.5	--	--	18.9	5	55	--	--
17.			15.0	--	--	28.9	3	2	--	--
18.			24.0	--	--	47.9	4	10	--	--
19.			21.0	--	--	39.9	4	5	--	--
20.			11.5	--	--	12.3	2	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No	New	16.0	--	--	14.5	2	0	--	--
2.	Growth		23.0	--	--	34.5	3	0	--	--
3.			17.0	--	--	36.0	4	5	--	--
4.			11.0	--	--	37.5	4	30	--	--
5.			17.0	--	--	43.3	4	20	--	--
6.			28.0	--	--	36.9	4	5	--	--
7.			9.0	--	--	10.1	2	0	--	--
8.			23.0	--	--	50.1	4	5	--	--
9.			25.0	--	--	28.9	3	0	--	--
10.			32.0	--	--	49.5	4	2	--	--
11.			25.0	--	--	41.8	4	5	--	--
12.			22.5	--	--	44.2	4	3	--	--
13.			36.0	--	--	59.2	5	35	--	--
14.			32.0	--	--	21.5	5	60	--	--
15.			41.0	--	--	38.9	5	40	--	--
16.			16.5	--	--	18.9	5	55	--	--
17.			15.0	--	--	28.9	3	2	--	--
18.			24.0	--	--	47.9	4	10	--	--
19.			21.0	--	--	39.9	4	5	--	--
20.			11.5	--	--	12.3	2	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	17.0	--	--	--	--	14.5	2	85	--	--
2.	1.2	--	25.0	--	--	34.5	3	0	--	--
3.	1.1	--	16.0	--	--	36.0	4	5	--	--
4.	1.2	--	13.0	--	--	37.5	4	30	--	--
5.	1.1	--	17.0	--	--	43.3	4	20	--	--
6.	1.1	--	19.0	--	--	36.9	4	5	--	--
7.	1.2	--	8.5	--	--	10.1	2	0	--	--
8.	1.0	--	20.5	--	--	50.1	4	5	--	--
9.	1.0	--	26.0	--	--	28.6	3	0	--	--
10.	1.2	--	24.7	--	--	49.5	4	2	--	--
11.	1.2	--	25.3	--	--	41.8	4	5	--	--
12.	1.2	--	22.0	--	--	44.2	4	3	--	--
13.	1.2	--	36.5	--	--	59.2	5	35	--	--
14.	1.2	--	31.0	--	--	21.5	5	60	--	--
15.	1.1	--	39.5	--	--	38.9	5	40	--	--
16.	1.1	--	17.5	--	--	18.9	5	55	--	--
17.	1.1	--	15.0	--	--	28.9	3	2	--	--
18.	1.2	--	22.0	--	--	47.9	4	10	--	--
19.	1.2	--	20.4	--	--	39.9	4	5	--	--
20.	1.2	--	--	--	--	12.3	2	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA   Study Area Demer   Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	2.0	--	8.0	--	--	14.5	2	97	--	--
2.	3.0	--	21.5	--	--	34.5	3	0	.5	--
3.	2.6	--	16.7	--	--	36.0	4	5	--	--
4.	3.0	--	13.4	--	--	37.5	4	30	.5	--
5.	3.0	--	15.0	--	--	43.3	4	20	.5	--
6.	3.1	--	18.2	--	--	36.9	4	5	1.0	--
7.	3.1	--	8.0	--	--	10.1	2	0	1.0	--
8.	3.0	--	17.9	--	--	50.1	4	5	.5	--
9.	3.0	--	25.8	--	--	28.6	3	0	.5	--
10.	3.2	--	35.3	--	--	49.5	4	2	1.5	--
11.	3.1	--	24.4	--	--	41.8	4	5	1.5	--
12.	3.1	--	21.4	--	--	44.2	4	3	1.0	--
13.	3.1	--	37.4	--	--	59.2	5	35	1.0	--
14.	3.2	--	30.5	--	--	21.5	5	60	2.0	--
15.	3.1	--	41.6	--	--	38.9	5	40	1.0	--
16.	3.0	--	17.7	--	--	18.9	5	55	.5	--
17.	3.1	--	17.6	--	--	28.9	3	2	1.5	--
18.	3.2	--	21.1	--	--	47.9	4	10	2.0	--
19.	3.0	--	23.1	--	--	39.9	4	5	.5	--
20.	2.8	--	5.4	--	--	12.3	2	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 18 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.2	--	7.4	--	--	14.5	2	97	1.0	--	97% Dead
2.	3.2	--	21.4	--	--	34.5	3	0	1.0	--	
3.	3.2	--	17.2	--	--	36.0	4	5	1.0	--	
4.	3.2	5.2	12.1	--	--	37.5	4	30	1.0	2.0	
5.	3.3	--	17.6	--	--	43.3	4	20	1.5	--	
6.	3.3	5.3	21.8	--	--	36.9	4	5	2.0	3.0	
7.	3.3	--	10.6	--	--	10.1	2	0	2.0	--	
8.	3.2	--	20.5	--	--	50.1	4	5	1.0	--	
9.	3.3	5.3	29.6	--	--	28.6	3	0	1.5	4.5	
10.	3.3	5.3	34.5	--	--	49.5	4	2	2.0	5.5	
11.	3.3	5.3	24.8	--	--	41.8	4	5	1.5	5.0	
12.	3.3	5.3	21.9	--	--	44.2	4	3	1.0	3.5	
13.	3.3	5.3	28.6	--	--	59.2	5	35	3.0	5.0	
14.	3.3	5.3	30.7	--	--	21.5	5	60	1.5	5.0	
15.	3.3	5.2	39.5	--	--	38.9	5	40	1.5	3.0	
16.	3.3	5.3	18.2	--	--	18.9	5	55	1.5	4.0	
17.	3.3	5.2	19.1	--	--	28.9	3	2	1.5	3.5	
18.	3.3	5.3	23.0	--	--	47.9	4	10	1.5	5.0	
19.	3.2	--	20.9	--	--	39.9	4	5	1.0	--	
20.	3.2	--	8.8	--	--	12.3	2	5	.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 11 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.2	--	8.4	--	--	14.5	2	97	1.0	--	Dying
2.	3.3	5.4	22.1	--	--	34.5	3	0	1.0	2.5	
3.	3.2	--	15.4	--	--	36.0	4	5	1.0	--	
4.	3.3	5.4	11.5	--	--	37.5	4	30	1.0	2.5	
5.	3.4	--	16.4	--	--	43.3	4	20	2.5	--	
6.	3.5	5.4	19.6	--	--	36.9	4	5	3.0	4.5	
7.	3.5	--	28.0	--	--	10.1	2	0	3.0	--	
8.	3.3	--	18.5	--	--	50.1	4	50	1.5	--	Dying
9.	3.5	5.4	26.6	--	--	28.6	3	0	2.0	6.0	
10.	3.5	5.5	33.7	--	--	49.5	4	2	2.0	6.5	
11.	3.5	5.5	25.2	--	--	41.8	4	5	2.5	8.0	
12.	3.5	5.5	23.4	--	--	44.2	4	3	2.0	5.0	
13.	3.6	5.4	34.0	--	--	59.2	5	50	3.5	9.0	Dying
14.	3.5	5.4	33.8	--	--	21.5	5	60	1.5	6.0	
15.	3.5	5.3	39.6	--	--	38.9	5	50	2.0	3.5	
16.	3.5	5.2	18.4	--	--	18.9	5	55	2.5	5.5	
17.	3.3	5.4	20.1	--	--	28.9	3	2	1.5	4.0	
18.	3.5	5.4	24.3	--	--	47.9	4	10	3	6.5	
19.	3.3	--	17.1	--	--	39.9	4	45	1.5	--	Dying
20.	3.3	--	9.2	--	--	12.3	2	5	1.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 30 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.5	--	8.4	--	--	14.5	2	97	1.0	--	
2.	3.5	5.5	22.1	--	--	34.5	3	0	1.0	2.0	
3.	3.4	--	15.4	--	--	36.0	4	5	1.0	--	
4.	3.4	--	11.5	--	--	37.5	4	30	1.0	--	
5.	3.6	--	16.4	--	--	43.3	4	20	2.5	--	
6.	3.6	5.5	19.6	--	--	36.9	4	5	3.0	5.0	
7.	3.6	5.6	28.0	--	--	10.1	2	0	2.5	9.5	
8.	3.5	--	18.5	--	--	50.1	4	60	2.0	--	Dying
9.	3.5	5.5	26.6	--	--	28.6	3	0	2.0	6.0	
10.	3.6	5.6	33.7	--	--	49.5	4	2	3.0	9.5	
11.	3.5	5.5	25.2	--	--	41.8	4	5	2.0	5.5	
12.	3.5	5.5	23.4	--	--	44.2	4	3	2.0	5.0	
13.	3.5	5.4	34.0	--	--	59.2	5	70	2.0	7.5	Dying
14.	3.5	5.4	33.8	--	--	21.5	5	60	2.0	6.0	
15.	3.5	--	39.6	--	--	38.9	5	40	2.0	--	
16.	3.5	5.3	18.4	--	--	18.9	5	55	2.0	5.5	
17.	3.4	5.5	20.1	--	--	28.9	3	2	1.5	5.0	
18.	3.5	5.4	24.3	--	--	47.9	4	10	3.0	7.0	
19.	3.4	--	17.1	--	--	39.9	4	50	1.0	--	Dying
20.	3.5	--	9.2	--	--	12.3	2	5	1.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 23 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.				DEAD			2	100			
2.	4.0	5.7	20.9	--	--	34.5	3	0	1.0	2.8	
3.	4.0	--	17.4	--	--	36.0	4	5	1.7	--	
4.	4.0	5.6	12.3	--	--	37.5	4	30	2.5	2.5	
5.	4.0	--	17.5	--	--	43.3	4	20	2.0	--	
6.	4.0	--	20.2	--	--	36.9	4	5	3.0	--	
7.	4.0	--	10.8	--	--	10.1	2	0	1.5	--	
8.	4.0	--	19.4	--	--	50.1	4	75	2.3	--	Dying
9.	4.0	5.8	29.2	--	--	28.6	3	0	2.0	6.0	
10.	4.0	5.8	33.9	--	--	49.5	4	2	2.7	7.0	
11.	4.0	5.8	25.3	--	--	41.8	4	5	3.0	5.0	
12.	4.0	5.7	24.1	--	--	44.2	4	3	1.5	5.0	
13.	4.0	5.7	36.0	--	--	59.2	5	80	2.0	7.0	Dying
14.	4.0	5.7	34.1	--	--	21.5	5	60	2.0	6.0	
15.	4.0	5.8	39.3	--	--	38.9	5	40	3.0	4.5	
16.	4.0	--	18.0	--	--	18.9	5	55	5.5	--	
17.	4.0	5.7	20.6	--	--	28.9	3	2	1.0	5.0	
18.	4.0	5.4	24.3	--	--	47.9	4	10	3.0	7.0	
19.	4.0	--	15.7	--	--	39.9	4	65	2.0	--	Dying
20.	4.0	--	7.6	--	--	12.3	2	5	1.0	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 20 Sept 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.							2	100			
2.	4.5	8.2	21.0	--	--	34.5	3	0	1.0	3.0	
3.	4.5	--	17.4	--	--	36.0	4	5	1.7	--	
4.	4.5	7.8	12.7	--	--	37.5	4	30	2.5	3.0	
5.	4.5	--	17.5	--	--	43.3	4	20	2.0	--	
6.	4.5	--	20.2	--	--	36.9	4	5	3.0	--	
7.	4.5	--	10.8	--	--	10.1	2	0	1.5	--	
8.	4.5	--	19.4	--	--	50.1	4	75	2.3	--	
9.	4.5	8.1	30.0	--	--	28.6	3	0	2.0	6.5	
10.	4.5	8.3	34.0	--	--	49.5	4	2	2.7	7.0	
11.	4.5	8.0	25.8	--	--	41.8	4	5	3.0	5.5	
12.	4.5	7.8	24.6	--	--	44.2	4	3	1.5	5.5	
13.	4.5	7.8	36.4	--	--	59.2	5	80	2.0	8.0	
14.	4.5	7.8	34.3	--	--	21.5	5	60	2.0	6.2	
15.	4.5	8.1	39.5	--	--	38.9	5	40	3.0	5.0	
16.	4.5	--	18.0	--	--	18.9	5	55	5.5	--	
17.	4.5	7.9	21.2	--	--	28.9	3.	2	1.0	5.5	
18.	4.5	7.6	24.3	--	--	47.9	4	10	3.0	7.0	
19.	4.5	--	15.7	--	--	39.9	4	75	2.0	--	Dying
20.	4.5	--	7.6	--	--	12.3	2	5	1.0	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA　　Study Area Demer　　Date 15 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.							2	100			
2.	4.9	--	21.0	--	--	34.5	3	0	1.0	--	
3.	4.9	--	17.5	--	--	36.6	4	5	1.7	--	
4.	14.0	--	12.3	--	--	37.5	4	30	2.5	--	
5.	14.0	--	17.4	--	--	43.3	4	20	2.0	--	
6.	14.1	--	20.7	--	--	36.9	4	5	3.0	5.5	
7.	14.0	--	10.9	--	--	10.1	2	0	1.5	--	
8.	14.0	--	19.3	--	--	50.1	4	75	2.3	--	
9.	14.1	--	30.1	--	--	28.6	3	0	2.0	7.0	
10.	4.9	--	34.0	--	--	49.5	4	2	2.7	7.0	Died in bud
11.	4.9	--	26.2	--	--	41.8	4	5	3.0	6.0	
12.	4.9	--	24.5	--	--	44.2	4	3	1.5	5.5	
13.	14.0	--	36.4	--	--	59.2	5	80	2.0	8.0	Died in bud
14.	14.1	--	34.5	--	--	21.5	5	60	2.0	6.5	Died in bud
15.	4.9	--	39.0	--	--	38.9	5	40	3.0	--	
16.	14.0	--	18.0	--	--	18.9	5	55	5.5	--	
17.	14.0	--	21.7	--	--	28.9	3	2	1.0	6.0	Died in bud
18.	4.9	--	24.3	--	--	47.9	4	10	3.0	7.0	
19.	14.3	--	15.7	--	--	39.9	4	87	2.0	--	Dying
20.	14.1	--	7.6	--	--	12.3	2	5	1.0	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 22 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.							2	100			100% dead
2.	14.5	--	21.0	--	--	34.5	3	0	1.0	--	
3.	14.5	--	17.5	--	--	36.0	4	5	1.7	--	
4.	14.6	--	12.3	--	--	37.5	4	30	2.5	--	
5.	14.6	--	17.4	--	--	43.3	4	20	2.0	--	
6.	14.6	15.9	20.7	--	--	36.9	4	5	3.0	5.5	
7.	14.6	--	10.9	--	--	10.1	2	0	1.5	--	
148.6	--	19.3	--	--	50.1	4	75	2.3	--		
9.	14.6	15.9	30.1	--	--	28.6	3	0	2.0	7.0	
10.	14.5	5.0	34.0	--	--	49.5	4	2	2.7	7.0	Died in bud
11.	14.5	15.9	26.2	--	--	41.8	4	5	3.0	6.0	
12.	14.5	15.9	24.5	--	--	44.2	4	3	1.5	5.5	
13.	14.6	5.0	36.4	--	--	59.2	5	80	2.0	8.0	Died in bud
14.	14.6	5.0	34.5	--	--	21.5	5	60	2.0	6.5	Died in bud
15.	14.5	--	39.0	--	--	38.9	5	40	30	--	
16.	14.6	--	18.0	--	--	18.9	5	55	5.5	--	
17.	14.6	5.0	21.7	--	--	28.9	3	2	1.0	6.0	Died in bud
18.	14.5	15.9	24.3	--	--	47.9	4	10	3.0	7.0	
19.	14.8	--	15.7	--	--	39.9	4	87	2.0	--	
20.	14.6	--	7.6	--	--	12.3	2	5	1.0	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Demer Date 19 Dec 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.								100			
2.	14.7	--	21.0	--	--	34.5	3	0	1.0	--	
3.	14.6	--	17.5	--	--	36.0	4	5	1.7	--	
4.	14.7	--	12.3	--	--	37.5	4	30	2.5	--	
5.	14.7	--	17.4	--	--	43.3	4	20	2.0	--	
6.	14.7	15.9	20.7	--	--	36.9	4	5	3.0	5.5	
7.	14.7	--	10.9	--	--	10.1	2	0	1.5	--	
8.	14.7	--	19.3	--	--	50.1	4	75	2.3	--	
9.	14.7	15.9	30.1	--	--	28.6	3	0	2.0	7.0	
10.	14.6	5.0	34.0	--	--	49.5	4	2	2.7	7.0	Died in bud
11.	14.6	15.9	26.2	--	--	41.8	4	5	3.0	6.0	
12.	14.7	15.9	24.5	--	--	44.2	4	3	1.5	5.5	
13.	14.7	5.0	36.4	--	--	59.2	5	80	2.0	8.0	Died in bud
14.	14.7	5.0	34.5	--	--	21.5	5	60	2.0	6.5	Died in bud
15.	14.7	--	39.0	--	--	38.9	5	40	3.0	--	
16.	14.7	--	18.0	--	--	18.9	5	55	5.5	--	
17.	14.7	5.0	21.7	--	--	28.9	3	2	1.0	6.0	Died in bud
18.	14.7	15.9	24.3	--	--	47.9	4	10	3.0	7.0	
19.	14.7	--	15.7	--	--	39.9	4	87	2.0	--	
20.	14.8	--	7.6	--	--	12.3	2	5	1.0	--	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 2 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.1	34.5	--	--	3
2.	17.0	--	.1	7.5	--	--	2
3.	17.0	--	.3	21.0	--	--	2
4.	17.0	--	.1	17.0	--	--	1
5.	17.0	--	.3	20.5	--	--	1
6.	17.0	--	.3	26.8	--	--	1
7.	17.0	--	.1	12.9	--	--	1
8.	17.0	--	.1	6.6	--	--	1
9.	17.0	--	.2	8.6	--	--	2
10.	17.0	--	.2	15.5	--	--	2
11.	17.0	--	.1	28.0	--	--	1
12.	17.0	--	.2	16.5	--	--	1
13.	17.0	--	.3	26.0	--	--	2
14.	17.0	--	.2	26.5	--	--	1
15.	17.0	--	.2	17.6	--	--	1
16.	17.0	--	.2	21.1	--	--	1
17.	17.0	--	.1	8.8	--	--	1
18.	17.0	--	.3	15.0	--	--	1
19.	17.0	--	.1	14.4	--	--	1
20.	17.0	--	.1	16.2	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 22 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.1	34.5	--	--	3
2.	17.0	--	.1	7.5	--	--	2
3.	17.0	--	.3	21.0	--	--	2
4.	17.0	--	.1	17.0	--	--	1
5.	17.0	--	.3	20.5	--	--	1
6.	17.0	--	.3	26.8	--	--	1
7.	17.0	--	.1	12.9	--	--	1
8.	17.0	--	.1	6.6	--	--	1
9.	17.0	--	.2	8.6	--	--	2
10.	17.0	--	.2	15.5	--	--	2
11.	17.0	--	.1	28.0	--	--	1
12.	17.0	--	.2	16.5	--	--	1
13.	17.0	--	.3	26.0	--	--	2
14.	17.0	--	.2	26.5	--	--	1
15.	17.0	--	.2	17.6	--	--	1
16.	17.0	--	.2	21.1	--	--	1
17.	17.0	--	.1	8.8	--	--	1
18.	17.0	--	.3	15.0	--	--	1
19.	17.0	--	.1	14.4	--	--	1
20.	17.0	--	.1	16.2	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 30 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	17.0	--	--	--	--	--	--	
2.	17.0	--	--	--	--	--	--	
3.	1.2	--	.1	2.8	--	--	--	
4.	17.0	--	--	--	--	--	--	
5.	1.1	--	.1	1.3	--	--	--	
6.	17.0	--	--	--	--	--	--	
7.	1.2	--	.1	2.2	--	--	--	
8.	1.3	--	.1	4.1	--	--	--	
9.	1.1	--	.1	1.6	--	--	--	
10.	1.3	--	.1	3.7	--	--	--	
11.	1.2	--	.1	2.8	--	--	--	
12.	--	--	--	--	--	--	--	Destroyed
13.	1.1	--	.1	1.4	--	--	--	
14.	17.0	--	--	--	--	--	--	
15.	17.0	--	--	--	--	--	--	
16.	17.0	--	--	--	--	--	--	
17.	1.0	--	.1	0.8	--	--	--	
18.	1.2	--	.1	2.0	--	--	--	
19.	1.2	--	.1	2.2	--	--	--	
20.	1.3	--	.1	3.7	--	--	--	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 27 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	1.5	--	.1	5.1	--	--	3
2.	2.1	--	.1	3.0	--	--	1
3.	2.5	--	.2	7.3	--	--	3
4.	2.6	--	.2	8.2	--	--	2
5.	2.7	--	.2	6.9	--	--	2
6.	2.8	--	.2	7.8	--	--	2
7.	3.0	--	.1	5.0	--	--	1
8.	3.0	--	.1	5.4	--	--	1
9.	2.2	--	.1	4.5	--	--	1
10.	3.1	--	.2	5.6	--	--	2
11.	2.9	--	.2	9.6	--	--	2
12.	2.3	--	.2	5.9	--	--	5
13.	2.2	--	.1	5.8	--	--	1
14.	1.2	--	.1	3.2	--	--	1
15.	2.3	--	.2	7.2	--	--	1
16.	2.9	--	.2	12.6	--	--	1
17.	2.3	--	.1	5.1	--	--	1
18.	3.3	--	.1	5.5	--	--	1
19.	3.0	--	.2	6.8	--	--	1
20.	3.0	--	.1	5.4	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 23 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.8	--	.1	15.5	--	--	3	
2.	2.6	--	.1	5.5	--	--	1	
3.	3.7	--	.2	16.8	--	--	3	
4.	3.5	--	.2	13.1	--	--	2	
5.	3.5	--	.2	14.3	--	--	2	
6.	3.7	--	.2	14.7	--	--	2	
7.	3.6	--	.2	10.4	--	--	1	
8.	2.8	--	.1	9.7	--	--	1	
9.	--	--	--	--	--	--	--	Dead
10.	3.7	--	.2	14.2	--	--	2	
11.	2.9	--	.2	15.5	--	--	2	
12.	3.3	--	.2	12.5	--	--	5	
13.	3.4	--	.2	13.9	--	--	1	
14.	2.8	--	.1	15.4	--	--	1	
15.	4.1	--	.2	18.8	--	--	1	
16.	3.5	--	.2	14.5	--	--	1	
17.	2.7	--	.1	9.1	--	--	1	
18.	2.8	--	.1	9.2	--	--	1	
19.	3.2	--	.1	17.2	--	--	1	
20.	3.2	--	.1	11.9	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 6 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.2	5.0	.2	17.8	--	--	3	
2.	3.7	--	.1	6.2	--	--	1	
3.	4.2	--	.3	18.4	--	--	3	
4.	4.3	--	.3	16.5	--	--	2	
5.	4.3	--	.3	16.4	--	--	2	
6.	4.3	--	.2	16.8	--	--	2	
7.	3.9	--	.2	14.0	--	--	1	
8.	3.8	--	.2	10.1	--	--	1	
9.	--	--	--	--	--	--	--	Dead
10.	3.9	--	.2	16.1	--	--	2	
11.	4.1	--	.3	22.6	--	--	2	
12.	4.2	--	.2	19.1	--	--	5	
13.	3.9	--	.2	14.1	--	--	1	
14.	3.1	--	.1	17.0	--	--	1	
15.	3.9	--	.2	19.8	--	--	1	
16.	3.9	--	.2	19.1	--	--	1	
17.	3.7	--	.1	11.6	--	--	1	
18.	3.5	--	.1	10.9	--	--	1	
19.	3.8	--	.2	12.3	--	--	1	
20.	3.8	--	.1	11.9	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 20 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.0	--	.2	19.7	--	--	3	
2.	2.7	--	.1	6.1	--	--	1	
3.	3.4	--	.2	18.1	--	--	3	
4.	3.5	--	.3	16.4	--	--	2	
5.	4.3	5.3	.3	16.2	--	--	2	
6.	3.8	--	.3	17.0	--	--	2	
7.	3.2	--	.2	14.1	--	--	1	
8.	3.2	--	.2	9.7	--	--	1	
9.	--	--	--	--	--	--	--	Dead
10.	3.2	--	.3	16.7	--	--	2	
11.	4.1	--	.3	22.5	--	--	2	
12.	4.2	--	.3	19.0	--	--	5	
13.	--	--	--	--	--	--	--	Dead
14.	3.8	--	.2	18.0	--	--	1	
15.	4.2	--	.3	21.0	--	--	1	
16.	3.9	--	.2	19.4	--	--	1	
17.	2.8	--	.1	7.5	--	--	1	
18.	3.7	--	.1	11.0	--	--	1	
19.	3.6	--	.2	12.3	--	--	1	
20.	3.5	--	.1	11.8	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 15 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.0	5.3	.3	19.5	6.4	--	3	
2.	14.8	--	.1	6.5	--	--	1	
3.	14.0	--	.2	18.1	--	--	3	
4.	14.0	--	.2	16.5	--	--	2	
5.	14.0	7.5	.2	17.0	16.0	3	2	Maturing in boot
6.	14.1	--	.2	16.9	--	--	2	
7.	14.1	5.1	.2	14.3	3.5	--	1	
8.	14.1	--	.1	10.0	--	--	1	
9.	14.1	--	.1	13.7	--	--	1	Dead - new plant
10.	14.1	5.1	.2	16.3	5.0	--	2	
11.	14.0	5.3	.3	22.3	9.0	--	2	
12.	14.1	5.2	.2	20.3	12.7	--	5	
13.	14.8	--	.2	14.4	--	--	1	
14.	14.2	5.1	.1	16.5	6.5	--	1	
15.	14.0	--	.2	21.3	--	--	1	
16.	14.1	5.1	.2	19.2	8.1	--	1	
17.	14.8	--	.1	7.0	--	--	1	
18.	14.5	--	.1	10.8	--	--	1	
19.	14.3	--	.1	12.0	--	--	1	
20.	14.6	--	.1	12.2	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Farson Date 15 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	17.0	--	.3	19.7	--	--	3	
2.	17.0	--	.1	5.5	--	--	1	
3.	17.0	--	.2	18.1	--	--	3	
4.	17.0	--	.2	17.0	--	--	2	
5.	17.0	--	.2	16.6	15.3	5	2	Mature in boot
6.	17.0	--	.2	19.0	--	--	2	
7.	17.0	--	.2	14.0	--	--	1	
8.	17.0	--	.1	5.3	--	--	1	
9.	17.0	5.5	.1	13.5	--	--	1	New plant
10.	17.0	--	.2	16.1	--	--	2	
11.	17.0	--	.3	11.3	--	--	2	Eaten
12.	17.0	--	.2	18.6	--	--	5	
13.	17.0	--	.2	7.3	--	--	1	
14.	17.0	--	.1	18.5	--	--	1	Seed heads never matured
15.	17.0	5.5	.2	20.5	--	--	1	
16.	17.0	--	.2	18.2	--	--	1	
17.	17.0	--	.1	5.5	--	--	1	
18.	17.0	--	.1	9.8	--	--	1	
19.	17.0	--	.1	12.5	--	--	1	
20.	17.0	--	.1	12.1	--	--	1	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 2 Feb 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	14.9	15.9	23.0	--	--	36.0	3	5	--	--	
2.	14.9	--	11.0	--	--	26.5	3	10	--	--	
3.	14.9	15.9	35.0	--	--	65.0	4	15	--	--	
4.	14.9	--	20.0	--	--	24.0	3	25	--	--	
5.	14.9	15.9	40.0	--	--	59.5	4	15	--	--	
6.	14.9	15.9	29.0	--	--	37.5	4	10	--	--	
7.	14.9	--	14.0	--	--	15.0	2	2	--	--	
8.	14.9	--	29.0	--	--	44.0	4	5	--	--	
9.	14.9	--	18.0	--	--	42.0	3	5	--	--	
10.	14.9	--	17.0	--	--	30.0	5	5	--	--	
11.	14.9	--	34.0	--	--	47.5	4	5	--	--	
12.	14.9	15.9	35.0	--	--	50.0	3	2	--	--	
13.	14.9	15.9	21.5	--	--	32.5	4	15	--	--	
14.	14.9	15.9	31.0	--	--	41.1	4	20	--	--	
15.	14.9	--	21.0	--	--	15.0	3	10	--	--	
16.	14.9	--	12.0	--	--	18.5	3	5	--	--	
17.	14.9	--	10.0	--	--	12.5	3	99.5	--	--	
18.	14.9	--	13.0	--	--	38.5	4	35	--	--	
19.	14.9	--	27.0	--	--	24.5	3	15	--	--	
20.	14.9	--	17.0	--	--	33.0	3	5	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 22 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		23.0	--	--	36.0	3	5	--	--
2.	New		11.0	--	--	26.5	3	10	--	--
3.	Growth		35.0	--	--	65.0	4	15	--	--
4.			20.0	--	--	24.0	3	25	--	--
5.			40.0	--	--	59.5	4	15	--	--
6.			29.0	--	--	37.5	4	10	--	--
7.			14.0	--	--	15.0	2	2	--	--
8.			29.0	--	--	44.0	4	5	--	--
9.			18.0	--	--	42.0	3	5	--	--
10.			17.0	--	--	30.0	5	5	--	--
11.			34.0	--	--	47.5	4	5	--	--
12.			35.0	--	--	50.0	3	2	--	--
13.			21.5	--	--	32.5	4	15	--	--
14.			31.0	--	--	41.0	4	20	--	--
15.			21.0	--	--	15.0	3	10	--	--
16.			12.0	--	--	18.5	3	5	--	--
17.			10.0	--	--	12.5	3	99.5	--	--
18.			13.0	--	--	38.5	4	35	--	--
19.			27.0	--	--	24.5	3	15	--	--
20.			17.0	--	--	33.0	3	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 30 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		23.0	--	--	36.0	3	5	--	--
2.	New		11.0	--	--	26.5	3	10	--	--
3.	Growth		35.0	--	--	65.0	4	15	--	--
4.			20.0	--	--	24.0	3	25	--	--
5.			40.0	--	--	59.5	4	15	--	--
6.			29.0	--	--	37.5	4	10	--	--
7.			14.0	--	--	15.0	2	2	--	--
8.			29.0	--	--	44.0	4	5	--	--
9.			18.0	--	--	42.0	3	5	--	--
10.			17.0	--	--	30.0	5	5	--	--
11.			34.0	--	--	47.5	4	5	--	--
12.			35.0	--	--	50.0	3	2	--	--
13.			21.5	--	--	32.5	4	15	--	--
14.			31.0	--	--	41.0	4	20	--	--
15.			21.0	--	--	15.0	3	10	--	--
16.			12.0	--	--	18.5	3	5	--	--
17.			10.0	--	--	12.5	3	99.5	--	--
18.			13.0	--	--	38.5	4	35	--	--
19.			27.0	--	--	24.5	3	15	--	--
20.			17.0	--	--	33.0	3	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 27 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		23.0	--	--	36.0	3	5	--	--
2.	New		11.0	--	--	26.5	3	10	--	--
3.	Growth		35.0	--	--	65.0	4	15	--	--
4.			20.0	--	--	24.0	3	25	--	--
5.			40.0	--	--	59.5	4	15	--	--
6.			29.0	--	--	37.5	4	10	--	--
7.			14.0	--	--	15.0	2	2	--	--
8.			29.0	--	--	44.0	4	5	--	--
9.			18.0	--	--	42.0	3	5	--	--
10.			17.0	--	--	30.0	5	5	--	--
11.			34.0	--	--	47.5	4	5	--	--
12.			35.0	--	--	50.0	3	2	--	--
13.			21.5	--	--	32.5	4	15	--	--
14.			31.0	--	--	41.0	4	20	--	--
15.			21.0	--	--	15.0	3	10	--	--
16.			12.0	--	--	18.5	3	5	--	--
17.			10.0	--	--	12.5	3	99.5	--	--
18.			13.0	--	--	38.5	4	35	--	--
19.			27.0	--	--	24.5	3	15	--	--
20.			17.0	--	--	33.0	3	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 23 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		23.0	--	--	36.0	3	5	--	--
2.			11.0	--	--	26.5	3	10	--	--
3.			35.0	--	--	65.0	4	15	--	--
4.			20.0	--	--	24.0	3	25	--	--
5.			40.0	--	--	59.5	4	15	--	--
6.			29.0	--	--	37.5	4	10	--	--
7.			14.0	--	--	15.0	2	2	--	--
8.			29.0	--	--	44.0	4	5	--	--
9.			18.0	--	--	42.0	3	5	--	--
10.			17.0	--	--	30.0	5	5	--	--
11.			34.0	--	--	47.5	4	5	--	--
12.			35.0	--	--	50.0	3	2	--	--
13.			21.5	--	--	32.5	4	15	--	--
14.			31.0	--	--	41.0	4	20	--	--
15.			21.0	--	--	15.0	3	10	--	--
16.			12.0	--	--	18.5	3	5	--	--
17.			10.0	--	--	12.5	3	99.5	--	--
18.			13.0	--	--	38.5	4	35	--	--
19.			27.0	--	--	24.5	3	15	--	--
20.			17.0	--	--	33.0	3	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 6 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.0	--	20.1	--	--	36.0	3	5	.5	--
2.	2.8	--	14.3	--	--	26.5	3	10	--	--
3.	3.0	--	31.7	--	--	65.0	4	15	.5	--
4.	2.8	--	19.9	--	--	24.0	3	25	--	--
5.	2.8	--	38.6	--	--	59.5	4	15	--	--
6.	2.8	--	25.7	--	--	37.5	4	10	--	--
7.	2.5	--	14.5	--	--	15.0	2	2	--	--
8.	2.8	--	27.5	--	--	44.0	4	5	--	--
9.	2.8	--	15.8	--	--	42.0	3	5	--	--
10.	2.5	--	15.4	--	--	30.0	5	5	--	--
11.	2.8	--	32.2	--	--	47.5	4	5	--	--
12.	3.1	--	35.7	--	--	50.0	3	2	1.0	--
13.	3.0	--	21.6	--	--	32.5	4	15	.5	--
14.	3.1	5.0	21.4	--	--	41.0	4	20	1.0	2.0
15.	3.0	--	18.0	--	--	15.0	3	10	.5	--
16.	3.0	--	17.4	--	--	18.5	3	5	.5	--
17.	1.0	--	8.3	--	--	12.5	3	99	--	--
18.	3.0	--	15.6	--	--	38.5	4	35	.5	--
19.	3.0	--	26.5	--	--	24.5	3	15	.5	--
20.	2.8	--	17.0	--	--	33.0	3	5	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 20 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.2	--	24.1	--	--	36.0	3	5	.5	--	
2.	3.2	--	12.0	--	--	26.5	3	10	.5	--	
3.	3.2	5.2	32.9	--	--	65.0	4	15	2.0	2.5	
4.	3.2	--	20.2	--	--	24.0	3	25	1.0	--	
5.	3.2	5.1	37.0	--	--	59.5	4	15	1.0	.5	
6.	3.2	5.2	24.1	--	--	37.5	4	10	1.0	2.5	
7.	3.1	--	14.5	--	--	15.0	2	2	.3	--	
8.	3.2	--	30.4	--	--	44.0	4	5	.5	--	
9.	3.2	--	19.1	--	--	42.0	3	5	1.0	--	
10.	3.1	--	17.6	--	--	30.0	5	5	.2	--	
11.	3.2	5.1	30.5	--	--	47.5	4	5	1.0	1.0	
12.	3.3	5.3	38.0	--	--	50.0	3	2	3.0	5.0	
13.	3.2	5.1	21.7	--	--	32.5	4	15	.5	1.5	
14.	3.3	5.3	23.0	--	--	41.0	4	20	1.5	5.0	
15.	3.2	--	19.4	--	--	15.0	3	10	1.5	--	
16.	3.2	--	14.8	--	--	18.5	3	5	.5	--	
17.	--	--	--	--	--	--	--	--	--	--	Dead
18.	3.2	--	20.3	--	--	38.5	4	35	.5	--	
19.	3.2	5.2	32.7	--	--	24.5	3	15	2.0	3.0	
20.	3.2	--	16.9	--	--	33.0	3	5	.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 15 July 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	3.4	--	20.1	--	--	36.0	3	5	2.0	--	
2.	3.4	--	18.3	--	--	26.5	3	10	1.5	--	
3.	3.3	5.3	33.2	--	--	65.0	4	15	1.0	4.5	
4.	3.2	--	18.8	--	--	24.0	3	25	.5	--	
5.	3.3	5.3	31.5	--	--	59.5	4	15	1.5	8.5	
6.	3.2	5.3	26.3	--	--	37.5	4	10	1.0	5.5	
7.	3.2	--	14.0	--	--	15.0	2	2	.5	--	
8.	3.2	--	30.8	--	--	44.0	4	5	.5	--	
9.	3.2	--	18.2	--	--	42.0	3	5	.5	--	
10.	3.2	--	21.1	--	--	30.0	5	5	.5	--	
11.	3.2	--	30.5	--	--	47.5	4	5	1.0	--	
12.	3.4	5.3	40.0	--	--	50.0	3	2	3.0	7.0	
13.	3.2	5.3	23.7	--	--	32.5	4	15	1.0	3.0	
14.	3.3	5.3	23.5	--	--	41.0	4	10	2.0	8.5	
15.	3.2	--	19.8	--	--	15.0	3	10	1.0	--	
16.	3.3	--	20.0	--	--	18.5	3	5	1.0	--	
17.	3.3	--	20.6	54.0	29.5	42.0	3	12	1.0	--	New plant
18.	3.2	--	12.6	--	--	38.5	4	35	.5	--	
19.	3.3	--	25.6	--	--	24.5	3	15	1.5	--	
20.	3.2	--	16.8	--	--	33.0	3	5	.5	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Farson Date 15 Nov 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	14.3	15.7	20.3	--	--	36.0	3	5	1.0	4.5	
2.	14.4	15.5	13.6	--	--	26.5	3	10	.5	1.5	
3.	14.4	15.7	35.0	--	--	65.0	4	15	1.0	4.0	
4.	14.4	--	17.0	--	--	24.0	3	25	1.0	--	
5.	14.4	15.5	37.6	--	--	59.5	4	15	1.5	9.0	
6.	14.4	15.3	26.8	--	--	37.5	4	10	1.0	5.5	
7.	14.5	--	11.1	--	--	15.0	2	2	.5	--	
8.	14.4	--	26.9	--	--	44.0	4	5	1.0	--	
9.	14.4	--	15.2	--	--	42.0	3	5	1.0	--	
10.	14.4	--	17.0	--	--	30.0	5	5	.5	--	
11.	14.4	15.5	31.4	--	--	47.5	4	5	1.5	2.5	
12.	14.5	15.5	39.5	--	--	50.0	3	2	1.0	6.5	
13.	14.5	15.5	20.0	--	--	32.5	4	15	1.0	3.5	
14.	14.3	15.3	26.1	--	--	41.0	4	20	1.5	6.5	
15.	14.4	--	17.0	--	--	15.0	3	10	1.0	--	
16.	14.4	--	13.8	--	--	18.5	3	5	1.0	--	
17.	14.4	--	20.6	54.0	29.5	42.0	3	12	1.0	--	New plant
18.	14.5	15.0	21.2	--	--	38.5	4	35	.5	1.5	
19.	14.4	--	24.5	--	--	24.0	3	15	1.0	--	
20.	14.4	--	17.0	--	--	33.0	3	5	1.0	--	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 1 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	17.0	--	.3	27.3	--	--	1	
2.	17.0	--	.3	24.0	--	--	4	
3.	17.0	--	.3	23.5	--	--	2	
4.	17.0	--	.3	19.2	--	--	4	
5.	17.0	--	.3	15.0	--	--	2	
6.	17.0	--	.3	18.5	--	--	3	
7.	17.0	--	.2	24.0	--	--	3	
8.	17.0	--	.2	24.5	--	--	2	
9.	17.0	--	.3	21.5	--	--	2	
10.	17.0	--	.4	25.0	--	--	4	
11.	17.0	--	.4	24.0	--	--	4	
12.	17.0	--	.2	13.2	--	--	2	
13.	17.0	--	.3	23.0	--	--	2	
14.	17.0	--	.3	16.5	--	--	4	
15.	17.0	--	.4	20.5	--	--	3	
16.	17.0	--	.2	14.0	--	--	1	Eaten off
17.	17.0	--	.3	20.0	--	--	4	
18.	17.0	--	.3	19.0	--	--	1	
19.	17.0	--	.3	25.0	--	--	3	
20.	17.0	--	.3	26.5	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 21 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	No	New	.3	27.3	--	--	1
2.	Growth		.3	24.0	--	--	4
3.			.3	23.5	--	--	2
4.			.3	19.2	--	--	4
5.			.3	15.0	--	--	2
6.			.3	18.5	--	--	3
7.			.2	24.0	--	--	3
8.			.2	24.5	--	--	2
9.			.3	21.5	--	--	2
10.			.4	25.0	--	--	4
11.			.4	24.0	--	--	4
12.			.2	13.2	--	--	2
13.			.3	23.0	--	--	2
14.			.3	16.5	--	--	4
15.			.4	20.5	--	--	3
16.			.2	14.0	--	--	1
17.			.3	20.0	--	--	4
18.			.3	19.0	--	--	1
19.			.3	25.0	--	--	3
20.			.3	26.5	--	--	3

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 8 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	17.0	--	--	--	--	--	1	
2.	1.3	--	.1	5.9	--	--	4	
3.	1.1	--	.1	2.9	--	--	2	
4.	17.0	--	--	--	--	--	4	
5.	17.0	--	--	--	--	--	2	
6.	1.3	--	.1	5.3	--	--	3	
7.	1.2	--	.1	4.6	--	--	3	
8.	1.1	--	.1	2.8	--	--	2	
9.	1.1	--	.1	1.6	--	--	2	Eaten off
10.	1.3	--	.1	5.6	--	--	4	
11.	1.2	--	.2	4.0	--	--	4	
12.	17.0	--	--	--	--	--	2	
13.	1.2	--	.1	4.6	--	--	2	
14.	17.0	--	--	--	--	--	4	
15.	1.1	--	.1	3.0	--	--	3	
16.	1.1	--	.1	2.6	--	--	1	
17.	1.1	--	.1	1.9	--	--	4	
18.	1.2	--	.1	2.3	--	--	1	Eaten off
19.	1.2	--	.1	3.5	--	--	3	
20.	1.0	--	.1	0.4	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 26 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	1.2	--	.2	2.3	--	--	1	Eaten off
2.	1.3	--	.2	4.2	--	--	4	
3.	1.4	--	.2	5.8	--	--	2	
4.	1.4	--	.2	5.3	--	--	4	
5.	1.2	--	.2	3.5	--	--	2	
6.	1.3	--	.2	4.8	--	--	3	
7.	1.0	--	.1	0.6	--	--	3	
8.	1.4	--	.2	5.3	--	--	2	
9.	1.1	--	.1	1.6	--	--	2	
10.	--	--	--	--	--	--	--	
11.	1.4	--	.3	5.7	--	--	4	Eaten off
12.	1.2	--	.1	2.1	--	--	2	
13.	1.4	--	.2	5.3	--	--	2	
14.	1.2	--	.2	2.1	--	--	4	
15.	2.1	--	.3	5.4	--	--	3	
16.	2.2	--	.2	4.3	--	--	1	
17.	2.0	--	.2	6.1	--	--	4	
18.	1.1	--	.1	1.3	--	--	1	
19.	2.1	--	.2	5.6	--	--	3	
20.	1.0	--	.1	0.7	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.8	--	.2	9.1	--	--	1	
2.	1.1	--	.1	1.5	--	--	4	Dying
3.	2.6	--	.3	10.0	--	--	2	
4.	2.5	--	.2	5.7	--	--	4	
5.	2.8	--	.2	8.8	--	--	2	
6.	3.0	--	.2	9.6	--	--	3	
7.	--	--	--	--	--	--	--	Dead
8.	2.5	--	.2	6.5	--	--	2	
9.	2.7	--	.3	6.2	--	--	2	
10.	2.8	--	.2	7.8	--	--	4	
11.	3.2	--	.3	8.1	--	--	4	
12.	2.3	--	.1	5.3	--	--	2	
13.	3.1	--	.3	10.5	--	--	2	
14.	2.8	--	.2	6.3	--	--	4	
15.	4.1	--	.4	17.9	--	--	3	
16.	2.9	--	.3	9.4	--	--	1	
17.	2.8	--	.3	10.2	--	--	4	
18.	2.6	--	.2	8.6	--	--	1	
19.	2.6	--	.2	5.5	--	--	3	
20.	--	--	--	--	--	--	--	Dead

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Demer Date 31 Jan 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.2	13.5	--	--	2
2.	17.0	17.0	.2	10.0	25.0	9	2
3.	17.0	17.0	.3	19.0	38.0	14	2
4.	17.0	--	.3	20.5	--	--	2
5.	17.0	--	.3	17.0	--	--	2
6.	17.0	15.9	.2	18.5	20.0	7	4
7.	17.0	--	.2	15.3	--	--	1
8.	17.0	--	.2	8.0	--	--	1
9.	17.0	--	.1	15.0	--	--	1
10.	17.0	--	.2	12.0	--	--	2
11.	17.0	--	.1	10.0	--	--	1
12.	17.0	--	.2	9.2	--	--	1
13.	17.0	15.8	.2	16.0	32.0	11	1
14.	17.0	17.0	.2	16.0	23.0	8	1
15.	17.0	--	.1	8.5	--	--	1
16.	17.0	--	.2	15.5	--	--	2
17.	17.0	--	.2	13.0	--	--	1
18.	17.0	--	.1	6.0	--	--	2
19.	17.0	--	.3	15.0	--	--	1
20.	17.0	--	.2	6.5	--	--	1

TABLE IV. (continued

AGROPYRON SMITHII Study Area Horse Creek Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.6	--	.3	10.4	--	--	1	
2.	2.8	--	.2	7.0	--	--	4	
3.	3.2	--	.3	12.6	--	--	2	
4.	3.0	--	.2	5.5	--	--	--	Eaten
5.	3.4	--	.3	11.2	--	--	2	
6.	3.6	--	.2	10.0	--	--	3	
7.	3.8	--	.3	9.5	--	--	3	
8.	3.1	--	.4	10.4	--	--	2	
9.	--	--	--	--	--	--	--	Dead
10.	3.1	--	.3	9.4	--	--	4	
11.	3.1	--	.3	8.1	--	--	4	
12.	1.3	--	.1	5.7	--	--	2	
13.	3.4	--	.3	11.1	--	--	2	
14.	3.5	--	.2	7.2	--	--	4	
15.	4.3	--	.4	18.3	--	--	3	
16.	3.4	--	.3	12.0	--	--	1	
17.	2.1	--	.2	12.6	--	--	4	
18.	3.0	--	.3	10.4	--	--	1	
19.	2.1	--	.3	8.0	--	--	3	
20.	--	--	--	--	--	--	--	Dead

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 4 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.8	--	.2	10.0	--	--	1	
2.	2.6	--	.2	7.9	--	-	--	Eaten
3.	2.6	--	.2	13.0	--	--	2	
4.	3.2	--	.1	5.5	--	--	--	Eaten
5.	2.7	--	.2	11.5	--	--	2	
6.	3.4	--	.2	10.5	--	--	3	
7.	3.1	--	.3	13.1	--	--	3	
8.	3.3	--	.3	10.5	--	--	2	
9.	3.2	--	.3	8.0	--	--	2	
10.	3.2	--	.3	9.5	--	--	4	
11.	3.1	--	.3	9.2	--	--	4	
12.	2.3	--	.1	5.8	--	--	2	
13.	3.3	--	.3	8.0	--	--	--	Eaten
14.	2.8	--	.3	9.0	--	--	--	Eaten
15.	4.2	5.0	.4	15.8	5.8	--	3	
16.	4.1	--	.3	13.0	--	--	1	
17.	2.8	--	.2	14.0	--	--	4	
18.	3.3	--	.3	10.9	--	--	1	
19.	3.3	--	.3	9.1	--	--	3	
20.	--	--	--	--	--	--	--	Dead

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 18 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.8	--	.2	11.9	--	--	1	
2.	2.8	--	.1	7.5	--	--	4	
3.	2.9	--	.1	10.4	--	--	2	
4.	--	--	--	--	--	--	--	Dead
5.	3.8	--	.2	11.4	--	--	2	
6.	3.1	--	.2	12.0	--	--	3	
7.	--	--	--	--	--	--	--	Dead
8.	3.8	--	.2	10.5	--	--	2	
9.	3.8	--	.2	7.7	--	--	2	
10.	3.3	--	.3	9.0	--	--	4	
11.	3.4	--	.3	8.7	--	--	4	
12.	--	--	--	--	--	--	--	Dead
13.	3.4	--	.3	11.5	--	--	--	Eaten
14.	3.3	--	.3	9.1	--	--	--	Eaten
15.	4.3	5.2	.4	15.6	6.5	--	3	
16.	4.2	--	.4	13.1	--	--	1	
17.	3.5	--	.2	11.0	--	--	4	
18.	3.4	--	.2	12.0	--	--	1	
19.	--	--	--	--	--	--	--	Dead
20.	--	--	--	--	--	--	--	Dead

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 11 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.2	--	.2	11.9	--	--	1	
2.	14.9	--	.1	7.1	--	--	4	Eaten
3.	14.9	--	.1	10.8	--	--	2	
4.	14.8	--	.2	3.0	--	--	4	New plant
5.	14.2	--	.3	14.7	--	--	2	
6.	14.2	--	.1	10.1	--	--	3	
7.	14.9	--	.1	4.0	--	--	3	Eaten (new plant)
8.	14.9	--	.1	11.0	--	--	2	
9.	14.9	--	.1	7.9	--	--	2	
10.	14.8	--	.2	6.8	--	--	4	
11.	14.3	--	.2	4.5	--	--	4	
12.	14.8	--	.1	5.7	--	--	2	New plant
13.	14.9	--	.2	12.5	--	--	2	
14.	14.8	--	.1	7.0	--	--	4	
15.	14.2	11.0	.3	19.0	12.0	--	3	Maturing in boot
16.	14.3	--	.3	13.3	--	--	1	
17.	14.4	--	.2	11.4	--	--	4	
18.	14.6	--	.1	12.5	--	--	1	
19.	14.9	5.0	.3	23.5	8.0	--	3	New plant
20.	14.9	--	.2	7.8	--	--	3	New plant

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 30 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.8	--	.1	11.9	--	--	1	
2.	14.8	--	.1	7.1	--	--	4	
3.	14.8	--	.1	10.8	--	--	2	
4.	14.9	--	.2	3.0	--	--	4	Eaten
5.	14.7	--	.3	14.7	--	--	2	
6.	14.8	--	.1	10.1	--	--	3	
7.	14.9	--	.1	4.0	--	--	3	
8.	14.9	--	.1	11.0	--	--	2	
9.	14.8	--	.1	7.9	--	--	2	
10.	14.8	--	.2	6.8	--	--	4	
11.	14.5	--	.2	9.5	--	--	4	
12.	14.7	--	.1	5.7	--	--	2	
13.	14.9	--	.2	12.5	--	--	2	
14.	14.8	--	.1	7.0	--	--	4	
15.	14.5	11.5	.3	19.0	17.5	5	3	Maturing in boot
16.	14.6	--	.3	13.3	--	--	1	
17.	14.5	--	.2	11.4	--	--	4	
18.	14.8	--	.1	12.5	--	--	1	
19.	14.8	5.2	.3	23.5	16.0	--	3	Will not make seed
20.	14.8	--	.2	7.8	--	--	3	(new plant)

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 22 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.9	--	.3	15.5	--	--	1	
2.	14.9	--	.1	7.4	--	--	4	
3.	14.9	--	.1	11.1	--	--	4	
4.	14.9	--	.1	5.7	--	--	4	
5.	14.7	--	.2	11.5	--	--	2	
6.	14.9	--	.1	10.0	--	--	3	
7.	14.9	--	.1	4.0	--	--	3	
8.	14.9	--	.1	10.2	--	--	2	
9.	14.9	--	.1	8.0	--	--	2	
10.	14.9	--	.2	7.0	--	--	4	
11.	14.9	--	.1	8.1	--	--	4	
12.	14.9	--	.1	5.7	--	--	2	
13.	14.9	--	.1	2.3	--	--	2	
14.	14.9	--	.1	6.2	--	--	4	
15.	14.9	--	.3	11.3	--	--	3	Eaten
16.	14.9	--	.2	11.8	--	--	1	
17.	14.7	--	.2	13.6	--	--	4	
18.	14.8	--	.2	12.6	--	--	1	
19.	--	--	--	--	--	--	--	Dead
20.	14.9	--	.1	7.7	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 22 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	17.0	--	.3	15.5	--	--	1	
2.	17.0	--	.1	7.4	--	--	4	
3.	17.0	--	.1	11.1	--	--	2	
4.	17.0	--	.1	5.7	--	--	4	
5.	17.0	--	.2	11.5	--	--	2	
6.	17.0	--	.1	10.0	--	--	3	
7.	17.0	--	.1	4.0	--	--	3	
8.	17.0	--	.1	10.2	--	--	2	
9.	17.0	--	.1	8.0	--	--	2	
10.	17.0	--	.2	7.0	--	--	4	
11.	17.0	--	.1	8.1	--	--	4	
12.	17.0	--	.1	5.7	--	--	2	
13.	17.0	--	.1	2.3	--	--	2	
14.	17.0	--	.1	6.2	--	--	4	
15.	17.0	17.0	.3	11.3	--	--	3	Eaten
16.	17.0	--	.2	11.8	--	--	1	
17.	17.0	--	.2	13.6	--	--	4	
18.	17.0	--	.2	12.6	--	--	1	
19.	--	--	--	--	--	--	--	Dead
20.	17.0	--	.1	7.7	--	--	3	

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 1 Feb 1974

PLANT No.	PHENO. STAGE SCORE VEG.	REPR.	CLUMP LGTH. cm.	WIDTH cm.	DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	17.0	17.0	--	--	11.5	.3	35.0	42.0	7	20		Mature-intermediate
2.	17.0	17.0	--	--	8.0	.3	35.8	34.5	7	23		Mature-dense
3.	17.0	17.0	--	--	6.0	.4	37.5	37.0	4	5		Intermediate-dense
4.	17.0	17.0	--	--	1.5	.2	22.1	--	--	--		Young-dense
5.	17.0	17.0	--	--	1.0	.2	18.4	--	--	--		Seedlings
6.	17.0	17.0	--	--	11.0	.4	29.5	31.5	7	5		Mature-sparse
7.	17.0	--	--	--	6.4	.4	44.3	43.4	6	3		Intermediate-dense
8.	17.0	17.0	--	--	13.8	.4	25.5	29.5	6	13		Mature-dense
9.	17.0	17.0	--	--	2.0	.4	42.4	40.8	5	7		Young-dense
10.	17.0	--	--	--	20.8	.4	38.2	--	--	--		Mature-sparse
11.	17.0	17.0	--	--	6.0	.2	33.5	49.7	7	5		Young-sparse
12.	17.0	--	--	--	12.5	.2	24.8	--	--	--		Mature-sparse
13.	17.0	17.0	--	--	6.5	.2	30.2	--	--	--		Intermediate-dense
14.	17.0	17.0	--	--	9.8	.3	44.9	51.2	6	9		Intermediate-intermediate
15.	17.0	17.0	--	--	6.0	.2	34.4	33.5	5	3		Intermediate-dense
16.	17.0	--	--	--	5.7	.3	21.0	--	--	--		Intermediate-sparse
17.	17.0	--	--	--	2.0	.2	19.2	--	--	--		Young-dense
18.	17.0	17.0	--	--	10.5	.3	24.0	37.2	4	3		Intermediate-intermediate
19.	17.0	17.0	--	--	1.2	.2	34.5	--	--	--		Young-dense
20.	17.0	17.0	--	--	3.0	.2	36.5	--	--	--		Young-dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 21 Feb 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	17.0	17.0	--	--	11.5	.3	35.0	42.0	7	20		Mature-intermediate
2.	17.0	17.0	--	--	8.0	.3	35.8	34.5	7	23		Mature-dense
3.	17.0	17.0	--	--	6.0	.4	37.5	37.0	4	5		Intermediate-dense
4.	17.0	17.0	--	--	1.5	.2	22.1	--	--	--		Young-dense
5.	17.0	17.0	--	--	1.0	.2	18.4	--	--	--		Seedling
6.	17.0	17.0	--	--	11.0	.4	29.5	31.5	7	5		Mature-sparse
7.	17.0	--	--	--	6.4	.4	44.3	43.4	6	3		Intermediate-dense
8.	17.0	17.0	--	--	13.8	.4	25.5	29.5	6	13		Mature-dense
9.	17.0	17.0	--	--	2.0	.4	42.4	40.8	5	7		Young-dense
10.	17.0	--	--	--	20.8	.4	38.2	--	--	--		Mature-dense
11.	17.0	17.0	--	--	6.0	.2	33.5	49.7	7	5		Young-sparse
12.	17.0	--	--	--	12.5	.2	24.8	--	--	--		Mature-sparse
13.	17.0	17.0	--	--	6.5	.2	30.2	--	--	--		Intermediate-dense
14.	17.0	17.0	--	--	9.8	.3	44.9	51.2	6	9		Intermediate-intermediate
15.	17.0	17.0	--	--	6.0	.2	34.4	33.5	5	3		Intermediate-dense
16.	17.0	--	--	--	5.7	.3	21.0	--	--	--		Young-dense
17.	17.0	--	--	--	2.0	.2	19.2	--	--	--		Young-dense
18.	17.0	17.0	--	--	10.5	.3	24.0	37.2	4	3		Intermediate-intermediate
19.	17.0	17.0	--	--	1.2	.2	34.5	--	--	--		Young-dense
20.	17.0	17.0	--	--	3.0	.2	36.5	--	--	--		Young-dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 8 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	1.2	--	--	--	11.5	.1	3.3	--	--	--		
2.	1.2	--	--	--	8.0	.1	2.9	--	--	--		
3.	1.2	--	--	--	6.0	.1	2.6	--	--	--		
4.	1.2	--	--	--	1.5	.2	4.3	--	--	--		
5.	1.2	--	--	--	1.0	.1	4.4	--	--	--		
6.	1.2	--	--	--	11.0	.1	3.1	--	--	--		
7.	1.3	--	--	--	6.4	.2	5.3	--	--	--		
8.	1.2	--	--	--	13.8	.2	3.6	--	--	--		
9.	1.2	--	--	--	2.0	.1	3.1	--	--	--		
10.	1.2	--	--	--	20.8	.1	2.8	--	--	--		
11.	1.2	--	--	--	6.0	.2	3.4	--	--	--		
12.	1.2	--	--	--	12.5	.2	3.7	--	--	--		
13.	1.2	--	--	--	6.5	.1	2.0	--	--	--		Eaten off
14.	1.2	--	--	--	9.8	.2	3.5	--	--	--		
15.	1.1	--	--	--	6.0	.1	2.4	--	--	--		
16.	1.1	--	--	--	5.7	.1	2.8	--	--	--		
17.	1.2	--	--	--	2.0	.1	3.2	--	--	--		
18.	1.2	--	--	--	10.5	.2	3.7	--	--	--		
19.	1.1	--	--	--	1.2	.1	2.2	--	--	--		
20.	1.3	--	--	--	3.0	.2	4.9	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 29 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	2.2	--	--	--	11.5	.3	4.1	--	--	--		
2.	2.0	--	--	--	8.0	.2	5.1	--	--	--		
3.	2.1	--	--	--	6.0	.3	6.2	--	--	--		
4.	2.0	--	--	--	1.5	.2	3.2	--	--	--		
5.	2.1	--	--	--	1.0	.2	4.0	--	--	--		
6.	2.1	--	--	--	11.0	.3	4.5	--	--	--		Eaten (deer)
7.	2.1	--	--	--	6.4	.3	5.3	--	--	--		
8.	2.2	--	--	--	13.8	.3	7.3	--	--	--		
9.	2.2	--	--	--	2.0	.3	5.7	--	--	--		Complete center eaten out
10.	2.2	--	--	--	20.8	.3	4.2	--	--	--		
11.	2.0	--	--	--	6.0	.3	5.0	--	--	--		
12.	2.0	--	--	--	12.5	.2	3.3	--	--	--		
13.	2.1	--	--	--	6.5	.3	4.4	--	--	--		
14.	2.2	--	--	--	4.8	.3	6.0	--	--	--		
15.	2.2	--	--	--	6.0	.3	5.6	--	--	--		
16.	2.2	--	--	--	5.7	.3	4.7	--	--	--		
17.	2.0	--	--	--	12.0	.2	1.4	--	--	--		
18.	2.2	--	--	--	10.5	.3	5.0	--	--	--		
19.	2.2	--	--	--	1.2	.3	4.0	--	--	--		
20.	2.2	--	--	--	3.0	.3	5.7	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 26 April 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.2	--	--	--	11.5	.3	19.5	--	--	--		Mature-intermediate
2.	4.3	--	--	--	8.0	.3	19.6	--	--	--		Mature-dense
3.	4.3	--	--	--	6.0	.3	21.0	--	--	--		Intermediate-dense
4.	4.0	--	--	--	1.5	.2	10.4	--	--	--		Young-dense
5.	3.4	--	--	--	1.0	.2	11.8	--	--	--		Seedling
6.	4.0	--	--	--	11.0	.2	18.5	--	--	--		Mature-sparse
7.	4.2	--	--	--	6.4	.3	25.0	--	--	--		Intermediate-dense
8.	4.1	--	--	--	13.8	.3	24.4	--	--	--		Mature-dense
9.	3.2	--	--	--	2.0	.2	16.0	--	--	--		Young-dense
10.	4.3	--	--	--	20.8	.3	25.1	--	--	--		Mature-dense
11.	3.4	--	--	--	6.0	.2	14.7	--	--	--		Young-sparse
12.	3.6	--	--	--	17.5	.2	14.6	--	--	--		Mature-sparse
13.	3.5	--	--	--	6.5	.2	18.5	--	--	--		Intermediate-dense
14.	3.7	--	--	--	9.8	.3	22.7	--	--	--		Intermediate-intermediate
15.	4.0	--	--	--	6.0	.3	17.4	--	--	--		Intermediate-dense
16.	3.6	--	--	--	5.7	.2	12.5	--	--	--		Intermediate-sparse
17.	4.1	--	--	--	2.0	.3	9.6	--	--	--		Young-dense
18.	3.9	--	--	--	10.5	.3	18.3	--	--	--		Intermediate-intermediate
19.	3.5	--	--	--	1.2	.2	12.0	--	--	--		Young-dense
20.	4.2	--	--	--	3.0	.3	12.7	--	--	--		Young-dense

TABLE IV. (continued

AGROPYRON SPICATUM Study Area Horse Creek Date 21 May 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.5	--	--	--	11.5	.3	19.5	--	--	--		Mature-intermediate
2.	4.2	--	--	--	8.0	.2	18.0	--	--	--		Mature-dense
3.	3.9	--	--	--	6.0	.4	21.6	--	--	--		Intermediate-dense
4.	4.1	--	--	--	1.5	.2	11.5	--	--	--		Young-dense
5.	4.2	--	--	--	1.0	.3	14.7	--	--	--		Seedling
6.	4.5	5.0	--	--	11.0	.3	20.1	--	--	--		Mature-sparse
7.	4.5	5.0	--	--	6.4	.3	28.0	--	--	--		Intermediate-dense
8.	4.2	--	--	--	13.8	.3	28.7	--	--	--		Mature-dense
9.	3.8	--	--	--	2.0	.2	19.4	--	--	--		Young-dense
10.	4.4	--	--	--	20.8	.3	30.5	--	--	--		Mature-dense
11.	4.4	5.0	--	--	6.0	.2	17.2	--	--	--		Young-sparse
12.	4.3	--	--	--	12.5	.2	23.0	--	--	--		Mature-sparse
13.	3.8	--	--	--	6.5	.2	15.3	--	--	--		Intermediate-dense
14.	4.1	--	--	--	9.8	.3	22.2	--	--	--		Intermediate-intermediate
15.	4.4	5.0	--	--	6.0	.3	21.0	--	--	--		Intermediate-dense
16.	3.6	--	--	--	5.7	.2	11.4	--	--	--		Intermediate-sparse
17.	4.1	--	--	--	2.0	.3	13.2	--	--	--		Young-dense
18.	4.0	--	--	--	10.5	.3	16.0	--	--	--		Intermediate-intermediate
19.	4.0	--	--	--	1.2	.3	16.9	--	--	--		Young-dense
20.	3.5	--	--	--	3.0	.2	15.0	--	--	--		Young-dense

TABLE IV. (Continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 4 June 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	4.4	6.1	--	--	11.5	.3	24.2	22.5	2	8		Mature-intermediate
2.	4.2	5.0	--	--	8.0	.3	27.8	17.6	--	--		Mature-dense
3.	4.1	5.0	--	--	6.0	.3	23.0	9.5	--	--		Intermediate-dense
4.	4.2	--	--	--	1.5	.2	12.3	--	--	--		Young-dense
5.	4.4	6.5	--	--	1.0	.3	28.0	28.5	5	21		Seedling
6.	4.3	6.3	--	--	11.0	.3	24.1	25.7	4	10		Mature-sparse
7.	4.3	6.0	--	--	6.4	.3	25.7	25.5	1	2		Intermediate-dense
8.	4.3	6.2	--	--	13.8	.3	27.5	32.5	4	7		Mature-dense
9.	4.2	5.0	--	--	2.0	.3	22.7	16.3	--	--		Young-dense
10.	4.2	6.1	--	--	20.8	.3	26.5	22.2	2	1		Mature-dense
11.	4.3	6.2	--	--	6.0	.2	19.3	21.2	1	5		Young-sparse
12.	4.2	5.7	--	--	12.5	.3	23.0	--	--	--		Mature-sparse
13.	4.1	--	--	--	6.5	.2	19.3	--	--	--		Intermediate-dense
14.	4.4	6.3	--	--	9.8	.3	35.7	41.3	3	2		Intermediate-intermediate
15.	4.4	6.3	--	--	6.0	.3	26.7	30.9	6	12		Intermediate-dense
16.	4.2	--	--	--	5.7	.2	12.6	--	--	--		Intermediate-sparse
17.	4.1	--	--	--	2.0	.2	12.7	--	--	--		Young-dense
18.	4.2	5.0	--	--	10.5	.2	16.8	6.4	--	--		Intermediate-intermediate
19.	4.2	5.0	--	--	1.2	.3	19.4	8.5	--	--		Young-dense
20.	4.0	--	--	--	3.0	.2	14.6	--	--	--		Young-dense

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 18 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.7	11.2	--	--	11.5	.3	30.3	37.5	5	9		
2.	4.6	--	--	--	8.0	.3	27.7	33.4	--	2		Heads dying
3.	4.6	--	--	--	6.0	.3	17.0	24.0	--	1		Insect damage
4.	4.4	--	--	--	1.5	.2	13.1	--	--	--		
5.	4.3	--	--	--	1.0	.2	14.0	--	--	--		
6.	4.5	--	--	--	11.0	.3	17.3	33.4	4	6		Insect damage
7.	4.6	7.5	--	--	6.4	.3	28.8	33.5	1	1		Insect damage
8.	4.6	7.5	--	--	13.8	.3	22.2	28.1	3	11		Insect damage
9.	4.6	7.4	--	--	2.0	.2	18.5	21.4	1	1		Insect damage
10.	4.6	7.5	--	--	20.8	.3	31.2	30.6	1	4		Insect damage
11.	4.5	7.5	--	--	6.0	.2	19.6	26.3	1	2		Insect damage
12.	4.4	6.2	--	--	12.5	.2	19.7	17.8	--	1		
13.	4.4	--	--	--	6.5	.2	23.7	--	--	--		
14.	4.5	7.6	--	--	9.8	.3	38.1	49.0	2	2		Insect damage
15.	4.5	7.4	--	--	6.0	.3	28.8	39.7	6	16		
16.	4.4	--	--	--	5.7	.2	13.1	--	--	--		
17.	4.3	--	--	--	2.0	.2	11.5	--	--	--		
18.	4.5	7.4	--	--	10.5	.3	19.8	30.4	4	3		
19.	4.4	5.0	--	--	1.2	.2	18.7	--	--	--		
20.	4.4	--	--	--	3.0	.3	22.1	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 11 July 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	14.2	11.5	--	--	11.5	.3	30.3	37.5	5	9		
2.	14.2	11.5	--	--	8.0	.3	27.7	33.4	--	2		
3.	14.3	11.6	--	--	6.0	.3	17.0	24.0	--	1		
4.	14.1	11.3	--	--	1.5	.2	13.1	--	--	--		
5.	14.3	--	--	--	1.0	.2	14.0	--	--	--		
6.	14.3	11.5	--	--	11.0	.3	17.3	33.4	4	6		
7.	14.2	15.2	--	--	6.4	.3	28.8	33.5	1	1		
8.	14.3	15.2	--	--	13.8	.3	22.2	28.1	3	11		
9.	14.3	--	--	--	2.0	.2	18.5	21.4	1	1		
10.	14.2	15.6	--	--	20.8	.3	31.2	20.6	1	4		
11.	14.3	15.8	--	--	6.0	.2	19.6	26.3	1	2		
12.	14.4	11.5	--	--	12.5	.2	19.7	17.8	--	1		Drying in boot
13.	14.2	--	--	--	6.5	.2	23.7	--	--	--		
14.	14.2	15.7	--	--	9.8	.3	38.1	49.0	2	2		
15.	14.2	15.2	--	--	6.0	.3	28.8	39.7	6	16		
16.	14.2	--	--	--	5.7	.2	13.1	--	--	--		
17.	14.8	--	--	--	2.0	.2	11.5	--	--	--		
18.	14.4	--	--	--	10.5	.3	19.8	30.4	4	3		
19.	14.3	--	--	--	1.2	.2	18.7	--	--	--		
20.	14.2	--	--	--	3.0	.3	22.1	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 30 July 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	14.6	15.8	--	--	11.5	.2	29.7	36.0	7	10		
2.	14.6	15.9	--	--	8.0	.3	25.7	31.5	--	--		
3.	14.6	15.9	--	--	6.0	.2	27.2	31.6	--	--		
4.	14.8	--	--	--	1.5	.2	11.4	--	--	--		
5.	14.8	--	--	--	1.0	.2	15.0	--	--	--		
6.	14.7	15.8	--	--	11.0	.2	24.2	30.7	7	8		
7.	14.7	15.9	--	--	6.4	.2	30.6	34.9	7	4		
8.	14.6	15.7	--	--	13.8	.2	31.0	37.4	7	12		
9.	14.7	--	--	--	2.0	.2	18.0	--	--	--		
10.	14.6	15.9	--	--	20.8	.3	29.2	32.0	5	4		
11.	14.6	15.9	--	--	6.0	.2	20.1	26.0	7	2		
12.	14.8	6.0	--	--	12.5	.2	15.9	17.0	--	1		Matured & dried in boot
13.	14.6	--	--	--	6.5	.2	23.0	--	--	--		
14.	14.7	15.9	--	--	9.8	.2	31.2	37.5	8	2		
15.	14.7	15.9	--	--	6.0	.2	30.1	35.2	7	13		
16.	14.6	--	--	--	5.7	.1	15.7	--	--	--		
17.	14.9	--	--	--	2.0	.1	11.8	--	--	--		
18.	14.8	--	--	--	10.5	.1	19.1	--	--	--		
19.	14.6	--	--	--	1.2	.2	18.8	--	--	--		
20.	14.8	--	--	--	3.0	.2	17.0	--	--	--		

TABLE IV. (continued)

AGROPRYON SPICATUM Study Area Horse Creek Date 22 Aug 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	14.8	15.8	--	--	10.4	.3	29.7	36.0	--	--		Some of plants
2.	14.8	15.9	--	--	10.1	.2	25.7	32.3	--	--		have been
3.	14.8	15.9	--	--	6.5	.3	27.2	23.7	--	--		eaten
4.	14.9	--	--	--	2.0	.2	11.0	--	--	--		
5.	14.9	--	--	--	1.1	.3	14.6	--	--	--		
6.	14.8	15.9	--	--	13.2	.3	24.2	30.5	--	--		
7.	14.9	15.9	--	--	6.8	.3	30.6	34.0	--	--		
8.	14.8	15.8	--	--	15.0	.3	31.0	32.3	--	--		
9.	14.8	15.9	--	--	2.5	.2	18.0	29.9	--	--		
10.	14.8	15.9	--	--	15.4	.3	30.1	28.0	--	--		
11.	14.9	15.9	--	--	.5	.2	20.0	26.3	--	--		
12.	14.8	--	--	--	15.5	.2	14.0	--	--	--		
13.	14.9	--	3.0	1.0	2.0	.2	24.1	--	--	--		new plant
14.	14.8	15.9	--	--	14.9	.3	30.6	36.8	--	--		
15.	14.8	15.9	--	--	6.8	.3	29.3	39.2	--	--		
16.	14.9	--	--	--	5.1	.2	20.1	--	--	--		
17.	14.9	--	--	--	1.0	.1	11.6	--	--	--		
18.	14.9	--	--	--	4.2	.2	18.7	--	--	--		
19.	14.9	--	--	--	1.5	.2	19.0	--	--	--		
20.	14.9	--	--	--	1.0	.2	13.0	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Horse Creek Date 22 Nov 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	16.5	15.9	--	--	10.4	.3	29.7	36.0	--	--		
2.	16.5	15.9	--	--	10.1	.2	25.7	32.3	--	--		
3.	16.5	15.9	--	--	6.5	.3	27.2	23.7	--	--		
4.	17.0	--	--	--	2.0	.2	11.0	--	--	--		
5.	16.5	--	--	--	1.1	.3	14.6	--	--	--		
6.	16.5	15.9	--	--	13.2	.3	24.2	30.5	--	--		
7.	16.5	15.9	--	--	6.8	.3	30.6	34.0	--	--		
8.	16.7	15.9	--	--	15.0	.3	31.0	32.3	--	--		
9.	17.0	--	--	--	2.5	.2	18.0	29.9	--	--		
10.	16.5	15.9	--	--	15.4	.3	30.1	28.0	--	--		
11.	17.0	--	--	--	.5	.2	20.0	26.3	--	--		
12.	16.5	15.9	--	--	15.5	.2	14.0	--	--	--		
13.	17.0	--	--	--	2.0	.2	24.1	--	--	--		new plant
14.	16.5	15.9	--	--	14.9	.3	30.6	36.8	--	--		
15.	16.5	15.9	--	--	6.8	.3	29.3	39.2	--	--		
16.	16.5	15.9	--	--	5.1	.2	20.1	--	--	--		
17.	16.5	--	--	--	1.0	.1	11.6	--	--	--		
18.	16.5	15.9	--	--	4.2	.2	18.7	--	--	--		
19.	16.3	15.9	--	--	1.5	.2	19.0	--	--	--		
20.	16.3	--	--	--	1.0	.2	13.0	--	--	--		

TABLE IV. (continued)

ARTEMISIA NOVA   Study Area Horse Creek   Date 1 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	14.9	15.9	41.0	--	--	27.0	4	30	--	--	
2.	14.9	--	25.0	--	--	50.0	5	80	--	--	
3.	14.9	15.9	13.0	--	--	10.7	2	10	--	--	
4.	14.9	15.9	33.0	--	--	36.4	3	15	--	--	
5.	14.9	15.9	22.0	--	--	28.0	3	10	--	--	
6.	14.9	15.9	26.0	--	--	27.2	3	15	--	--	
7.	14.9	15.9	42.8	--	--	91.9	5	20	--	--	
8.	14.9	--	10.0	--	--	18.1	2	0	--	--	
9.	14.9	15.9	32.0	--	--	30.0	5	60	--	--	
10.	14.9	--	15.0	--	--	27.0	5	65	--	--	
11.	14.9	15.9	58.0	--	--	78.0	4	15	--	--	
12.	14.9	15.9	25.9	--	--	35.0	3	15	--	--	
13.	--	--	7.0	--	--	5.6	2	0	--	--	Broken off
14.	14.9	--	3.5	--	--	22.8	3	0	--	--	
15.	14.9	15.9	30.0	--	--	34.5	5	30	--	--	
16.	14.9	15.9	34.0	--	--	34.5	4	15	--	--	
17.	--	--	--	--	--	--	--	100	--	--	Died
18.	14.9	15.9	23.5	--	--	22.5	3	5	--	--	
19.	14.9	15.9	28.0	--	--	36.5	5	20	--	--	
20.	14.9	--	4.0	--	--	4.3	2	0	--	--	

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 21 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	No		41.0	--	--	27.0	4	30	--	--	
2.	New		25.0	--	--	50.0	5	80	--	--	
3.	Growth		13.0	--	--	10.7	2	10	--	--	
4.			33.0	--	--	36.4	3	15	--	--	
5.			22.0	--	--	28.0	3	10	--	--	
6.			26.0	--	--	27.2	3	15	--	--	
7.			42.8	--	--	91.9	5	20	--	--	
8.			10.0	--	--	18.1	2	0	--	--	
9.			32.0	--	--	30.0	5	60	--	--	
10.			15.0	--	--	27.0	5	65	--	--	
11.			58.0	--	--	78.0	4	15	--	--	
12.			25.9	--	--	35.0	3	15	--	--	
13.			7.0	--	--	5.6	2	0	--	--	Broken off
14.			3.5	--	--	22.8	3	0	--	--	
15.			30.0	--	--	34.5	5	30	--	--	
16.			34.0	--	--	34.5	4	15	--	--	
17.			--	--	--	--	--	--	--	--	
18.			--	--	--	22.5	3	5	--	--	
19.			--	--	--	36.5	5	20	--	--	
20.			--	--	--	4.3	2	0	--	--	

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 8 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		41.0	--	--	27.0	4	30	--	--
2.			25.0	--	--	50.0	5	80	--	--
3.			13.0	--	--	10.7	2	10	--	--
4.			33.0	--	--	36.4	3	15	--	--
5.			22.0	--	--	28.0	3	10	--	--
6.			26.0	--	--	27.2	3	15	--	--
7.			42.8	--	--	91.9	5	20	--	--
8.			10.0	--	--	18.1	2	0	--	--
9.			32.0	--	--	30.0	5	60	--	--
10.			15.0	--	--	27.0	5	65	--	--
11.			58.0	--	--	78.0	4	15	--	--
12.			25.9	--	--	35.0	3	15	--	--
13.			7.0	--	--	5.6	2	0	--	--
14.			3.5	--	--	22.8	3	0	--	--
15.			30.0	--	--	34.5	5	30	--	--
16.			34.0	--	--	34.5	4	15	--	--
17.			--	--	--	--	--	100	--	--
18.			23.5	--	--	22.5	3	5	--	--
19.			28.0	--	--	36.5	5	20	--	--
20.			4.0	--	--	4.3	2	0	--	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 29 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		41.0	--	--	27.0	4	30	--	--
2.	New		25.0	--	--	50.0	5	80	--	--
3.	Growth		13.0	--	--	10.7	2	10	--	--
4.			33.0	--	--	36.4	3	15	--	--
5.			22.0	--	--	28.0	3	10	--	--
6.			26.0	--	--	27.2	3	15	--	--
7.			42.0	--	--	91.9	5	20	--	--
8.			10.0	--	--	18.1	2	0	--	--
9.			32.0	--	--	30.0	5	60	--	--
10.			15.0	--	--	27.0	5	65	--	--
11.			58.0	--	--	78.0	4	15	--	--
12.			25.9	--	--	35.0	3	15	--	--
13.			7.0	--	--	5.6	2	0	--	--
14.			3.5	--	--	22.8	3	0	--	--
15.			30.0	--	--	34.5	5	30	--	--
16.			34.0	--	--	34.5	4	15	--	--
17.			--	--	--	--	--	100	--	--
18.			23.5	--	--	22.5	3	5	--	--
19.			28.0	--	--	36.5	5	20	--	--
20.			4.0	--	--	4.3	2	0	--	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 26 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		41.0	--	--	27.0	4	20	--	--
2.			25.0	--	--	50.0	5	80	--	--
3.			13.0	--	--	10.7	2	10	--	--
4.			33.0	--	--	36.4	3	15	--	--
5.			22.0	--	--	28.0	3	10	--	--
6.			26.0	--	--	27.2	3	15	--	--
7.			42.8	--	--	91.9	5	20	--	--
8.			10.0	--	--	18.1	2	0	--	--
9.			32.0	--	--	30.0	5	60	--	--
10.			15.0	--	--	27.0	5	65	--	--
11.			58.0	--	--	78.0	4	15	--	--
12.			25.9	--	--	35.0	3	15	--	--
13.			7.0	--	--	5.6	2	0	--	--
14.			3.5	--	--	22.8	3	0	--	--
15.			30.0	--	--	34.5	5	30	--	--
16.			34.0	--	--	34.5	4	15	--	--
17.			--	--	--	--	--	100	--	--
18.			23.5	--	--	22.5	3	5	--	--
19.			28.0	--	--	36.5	5	20	--	--
20.			4.0	--	--	4.3	2	0	--	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 21 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.1	--	28.0	--	--	27.0	4	30	2.5	--
2.	3.0	--	17.1	--	--	50.0	5	80	2.0	--
3.	1.0	--	9.0	--	--	10.7	2	10	2.5	--
4.	3.0	--	29.0	--	--	36.4	3	15	--	--
5.	1.1	--	19.0	--	--	28.0	3	10	--	--
6.	3.0	--	23.2	--	--	27.2	3	15	3.0	--
7.	1.5	--	36.0	--	--	91.9	5	20	--	--
8.	1.1	--	9.2	--	--	18.1	2	0	--	--
9.	3.0	--	24.0	--	--	30.0	5	60	.1	--
10.	3.2	--	16.4	--	--	27.0	5	65	3.5	--
11.	3.1	--	51.0	--	--	78.0	4	15	2.0	--
12.	3.1	--	19.5	--	--	35.0	3	15	2.0	--
13.	3.1	--	45.0	--	--	5.6	2	0	2.0	--
14.	1.0	--	4.0	--	--	22.8	3	0	--	--
15.	1.0	--	23.8	--	--	34.5	5	30	--	--
16.	3.1	--	27.0	--	--	34.5	4	15	2.5	--
17.	1.0	--	15.5	--	--	--	--	--	--	--
18.	3.1	--	21.0	--	--	22.5	3	5	1.5	--
19.	3.1	--	25.5	--	--	36.5	5	20	3.0	--
20.	1.0	--	4.9	--	--	4.3	2	0	--	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 4 June 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.3	5.0	37.8	--	--	27.0	4	30	1.0	8.5
2.	3.0	5.0	18.9	--	--	50.0	5	80	.5	6.5
3.	3.2	--	12.3	--	--	10.7	2	10	2.5	--
4.	3.3	5.0	34.0	--	--	36.4	3	15	3.5	7.0
5.	3.2	5.0	21.5	--	--	28.0	3	10	1.0	2.0
6.	3.3	5.0	27.5	--	--	27.2	3	15	1.5	7.0
7.	3.3	5.0	50.5	--	--	91.9	5	20	3.0	6.5
8.	3.1	--	12.0	--	--	18.1	2	0	1.0	--
9.	3.2	5.0	24.0	--	--	30.0	5	60	1.0	4.5
10.	3.1	5.0	17.2	--	--	27.0	5	65	1.0	8.5
11.	3.2	5.1	52.4	--	--	78.0	4	15	2.0	7.5
12.	3.2	5.0	21.5	--	--	35.0	3	15	1.5	6.0
13.	3.2	5.0	50.0	--	--	5.6	2	0	1.5	5.0
14.	3.2	--	4.5	--	--	22.8	3	0	2.5	--
15.	3.1	5.0	22.7	--	--	34.5	5	30	1.0	2.5
16.	3.1	5.0	30.8	--	--	34.5	4	15	1.0	5.5
17.	3.0	--	14.5	--	--	--	--	--	.5	--
18.	3.3	5.0	21.5	--	--	22.5	--	5	1.0	6.0
19.	3.3	5.0	33.0	--	--	36.5	--	20	3.0	6.5
20.	3.3	--	4.8	--	--	4.3	--	0	2.0	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 18 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.4	36.4	--	--	27.0	4	30	1.0	9.3
2.	3.3	5.3	70.6	--	--	50.0	5	80	1.0	8.0
3.	3.3	--	11.0	--	--	10.7	2	10	1.0	--
4.	3.3	5.3	41.6	--	--	36.4	3	15	2.0	11.0
5.	3.3	5.3	23.4	--	--	28.0	3	10	1.0	4.0
6.	3.3	5.3	27.2	--	--	27.2	3	15	1.5	10.0
7.	3.3	5.3	47.6	--	--	91.9	5	20	1.5	6.5
8.	3.3	5.2	10.5	--	--	18.1	2	0	1.5	2.0
9.	3.3	5.3	27.1	--	--	30.0	5	60	1.0	7.5
10.	3.3	5.3	21.4	--	--	27.0	5	65	2.0	10.5
11.	3.3	5.3	56.3	--	--	78.0	4	15	2.5	17.6
12.	3.3	5.3	31.6	--	--	35.0	3	15	1.5	10.0
13.	3.3	5.3	50.5	--	--	5.6	2	0	1.5	8.5
14.	3.3	--	4.1	--	--	22.8	3	0	1.5	--
15.	3.3	5.2	24.9	--	--	34.5	5	30	1.5	4.0
16.	3.3	5.3	32.4	--	--	34.5	4	15	1.0	6.5
17.	3.2	--	10.2	--	--	--	2	--	.5	--
18.	3.3	5.3	24.3	--	--	22.5	3	5	2.5	9.0
19.	3.3	5.3	25.2	--	--	36.5	5	20	2.0	8.5
20.	3.3	--	4.5	--	--	4.3	2	0	1.5	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 11 July 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PERCENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	3.3	5.6	40.1	--	--	27.0	4	30	1.5	15.5	
2.	14.1	5.5	20.4	--	--	50.0	5	80	1.5	9.0	Dying
3.	3.5	--	12.0	--	--	10.7	2	10	1.5	--	
4.	3.5	5.5	39.5	--	--	36.4	3	15	1.0	12.0	
5.	3.5	5.6	26.0	--	--	28.0	3	10	1.0	5.0	
6.	3.5	5.6	28.1	--	--	27.2	3	15	2.0	10.5	
7.	3.4	5.4	39.7	--	--	91.9	5	20	1.0	5.5	Insect damage
8.	3.5	--	12.6	--	--	18.1	2	0	2.0	--	
9.	3.5	5.4	28.4	--	--	30.0	5	60	1.0	8.0	
10.	3.5	5.6	20.3	--	--	27.0	5	65	2.0	11.0	
11.	3.5	5.6	58.2	--	--	78.0	4	15	2.0	14.0	
12.	3.5	5.6	29.5	--	--	35.0	3	15	1.5	11.5	
13.	3.5	5.4	45.5	--	--	5.6	2	0	2.5	9.5	
14.	3.5	--	4.8	--	--	22.8	3	0	2.0	--	
15.	3.5	5.5	25.9	--	--	34.5	5	30	2.0	6.5	
16.	3.4	5.6	33.4	--	--	34.5	4	15	1.5	9.0	
17.	3.4	--	13.6	--	--	--	2	--	1.0	--	
18.	3.5	5.6	24.8	--	--	22.5	3	5	1.5	9.5	
19.	3.6	5.6	32.0	--	--	36.5	5	20	1.5	9.5	
20.	3.5	--	5.0	--	--	4.3	2	0	1.5	--	

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 30 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.6	5.6	40.1	--	--	27.0	4	30	1.5	15.5
2.	3.6	5.6	20.4	--	--	50.0	5	80	1.5	9.0
3.	3.7	--	12.0	--	--	10.7	2	10	1.5	--
4.	3.5	5.6	39.5	--	--	36.4	3	15	1.0	12.0
5.	3.5	5.5	26.0	--	--	28.0	3	10	1.0	5.0
6.	3.6	5.6	28.1	--	--	27.2	3	15	2.0	10.5
7.	3.4	5.4	39.7	--	--	91.9	5	20	1.0	5.5
8.	3.6	--	12.6	--	--	18.1	2	0	2.0	--
9.	3.5	5.6	28.4	--	--	30.0	5	60	1.0	8.0
10.	3.6	5.5	20.3	--	--	27.0	5	65	2.0	11.0
11.	3.6	5.6	58.2	--	--	78.0	4	15	2.0	14.0
12.	3.6	5.6	29.5	--	--	35.0	3	15	1.5	11.5
13.	3.6	5.6	45.5	--	--	5.6	2	0	2.5	9.5
14.	3.6	--	4.8	--	--	22.8	3	0	2.0	--
15.	3.6	5.6	25.9	--	--	34.5	5	30	2.0	6.5
16.	3.6	5.7	33.4	--	--	34.5	4	15	1.5	9.0
17.	3.5	--	13.6	--	--	--	2	--	1.0	--
18.	3.6	5.6	24.8	--	--	22.5	3	5	1.5	9.5
19.	3.6	5.7	32.0	--	--	36.5	5	20	1.5	9.5
20.	3.6	--	5.0	--	--	4.3	2	0	1.5	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Horse Creek Date 22 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	4.0	5.9	41.2	--	--	27.0	4	30	1.5	15.2	
2.	4.0	5.8	28.6	--	--	50.0	5	80	2.0	8.2	
3.	4.0	--	11.2	--	--	10.7	2	10	2.0	--	
4.	4.0	5.9	38.9	--	--	36.4	3	15	3.0	11.3	
5.	4.0	5.8	24.6	--	--	28.0	3	10	2.0	6.2	Dying before maturity
6.	4.0	5.9	28.6	--	--	27.2	3	15	2.0	10.6	
7.	4.0	5.9	44.7	--	--	91.9	5	20	3.0	11.9	
8.	4.0	--	11.9	--	--	18.1	2	0	1.0	--	
9.	4.0	5.9	28.0	--	--	30.0	5	60	1.0	8.2	
10.	4.0	5.9	23.1	--	--	27.0	5	65	2.8	11.0	
11.	4.0	5.9	58.0	--	--	78.0	4	15	3.0	19.1	
12.	4.0	5.9	30.2	--	--	35.0	3	15	2.5	11.2	
13.	4.0	5.9	50.3	--	--	5.6	2	0	2.0	10.1	
14.	4.0	--	3.8	--	--	22.8	3	0	2.5	--	
15.	4.0	5.9	20.0	--	--	34.5	5	30	1.5	6.3	
16.	4.0	5.9	30.4	--	--	34.5	4	15	1.5	9.0	
17.	4.0	--	12.8	--	--	--	2	--	0.5	--	
18.	4.0	5.9	24.1	--	--	22.5	3	5	1.5	9.6	
19.	4.0	5.9	24.2	--	--	36.5	5	20	2.7	12.5	
20.	4.0	--	4.9	--	--	4.3	2	0	1.0	--	

TABLE IV. (continued)

ARTEMISIA NOVA   Study Area Horse Creek   Date 22 Nov 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	14.5	15.9	41.2	--	--	27.0	4	20	2.0	13.5
2.	14.4	15.9	28.6	--	--	50.0	5	80	1.5	8.0
3.	14.4	--	11.2	--	--	10.7	2	10	2.0	--
4.	14.4	15.9	38.9	--	--	36.4	3	15	3.0	11.3
5.	14.3	15.9	24.6	--	--	28.0	3	10	2.0	6.2
6.	14.4	15.9	28.6	--	--	27.2	3	15	2.0	10.6
7.	14.4	15.9	44.7	--	--	9.9	5	20	3.0	11.9
8.	14.5	--	11.9	--	--	18.1	2	0	1.0	--
9.	14.5	15.9	28.0	--	--	30.0	5	60	1.0	8.2
10.	14.5	15.9	23.1	--	--	27.0	5	65	2.8	11.0
11.	14.4	15.9	58.0	--	--	78.0	4	15	3.0	19.1
12.	14.5	15.9	30.2	--	--	35.0	3	15	2.5	11.2
13.	14.5	15.9	50.3	--	--	5.6	2	0	2.0	10.1
14.	14.4	--	3.8	--	--	22.8	3	0	2.5	--
15.	14.4	15.9	20.0	--	--	34.5	5	30	1.5	6.3
16.	14.4	15.9	30.4	--	--	34.5	4	15	1.5	9.0
17.	14.4	--	12.8	--	--	--	2	--	.5	--
18.	14.5	15.9	24.1	--	--	22.5	3	5	1.5	9.6
19.	14.5	15.9	24.2	--	--	36.5	5	20	2.7	12.5
20.	14.5	--	4.9	--	--	4.3	2	0	1.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA   Study Area Horse Creek   Date 1 February 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.			48.8	--	--	54.0	5	60	--	--
2.			28.5	--	--	71.5	5	50	--	--
3.			23.0	--	--	15.3	5	70	--	--
4.			63.0	--	--	58.7	4	15	--	--
5.			9.5	--	--	9.0	3	5	--	--
6.			16.4	--	--	23.5	3	10	--	--
7.			48.0	--	--	44.8	4	15	--	--
8.			2.0	--	--	61.4	3	15	--	--
9.	NO NEW	GROWTH	27.0	--	--	44.8	4	25	--	--
10.			21.0	--	--	30.8	5	45	--	--
11.			27.7	--	--	33.5	4	10	--	--
12.			17.0	--	--	16.6	5	35	--	--
13.			19.0	--	--	9.5	2	2	--	--
14.			38.0	--	--	53.4	5	50	--	--
15.			16.0	--	--	13.3	2	5	--	--
16.			36.0	--	--	43.8	5	40	--	--
17.			45.0	--	--	25.8	5	85	--	--
18.			25.0	--	--	24.8	5	60	--	--
19.			14.0	--	---	9.7	5	55	--	--
20.			19.0	--	--	13.5	5	90	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 21 February 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	NO NEW	GROWTH	48.8	--	--	54.0	5	60	--	--
2.			28.5	--	--	71.5	5	50	--	--
3.			23.0	--	--	15.3	5	70	--	--
4.			63.0	--	--	58.7	4	15	--	--
5.			9.5	--	--	9.0	3	5	--	--
6.			16.4	--	--	23.5	3	10	--	--
7.			48.0	--	--	44.8	4	15	--	--
8.			2.0	--	--	61.4	3	15	--	--
9.			27.0	--	--	44.8	4	25	--	--
10.			21.0	--	--	30.8	5	45	--	--
11.			27.7	--	--	33.5	4	10	--	--
12.			17.0	--	--	16.6	5	35	--	--
13.			19.0	--	--	9.5	2	2	--	--
14.			38.0	--	--	52.4	5	50	--	--
15.			16.0	--	--	13.3	2	5	--	--
16.			36.0	--	--	43.8	5	40	--	--
17.			45.0	--	--	25.8	5	85	--	--
18.			25.0	--	--	24.8	5	60	--	--
19.			14.0	--	--	9.7	5	55	--	--
20.			19.0	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 8 March 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	NO NEW	GROWTH	48.8	--	--	54.0	5	60	--	--
2.			28.5	--	--	71.5	5	50	--	--
3.			23.0	--	--	15.3	5	70	--	--
4.			63.0	--	--	58.7	4	15	--	--
5.			9.5	--	--	9.0	3	5	--	--
6.			16.4	--	--	23.5	3	10	--	--
7.			48.0	--	--	44.8	4	15	--	--
8.			2.0	--	--	61.4	3	15	--	--
9.			27.0	--	--	44.8	4	25	--	--
10.			21.0	--	--	30.8	5	45	--	--
11.			27.7	--	--	33.5	4	10	--	--
12.			17.0	--	--	16.6	5	35	--	--
13.			19.0	--	--	9.5	2	2	--	--
14.			38.0	--	--	53.4	5	50	--	--
15.			16.0	--	--	13.3	2	5	--	--
16.			36.0	--	--	43.8	5	40	--	--
17.			45.0	--	--	25.8	5	85	--	--
18.			25.0	--	--	24.8	5	60	--	--
19.			14.0	--	--	9.7	5	55	--	--
20.			19.0	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 29 March 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	NO NEW	GROWTH	48.8	--	--	54.0	5	60	--	--
2.			28.5	--	--	71.5	5	50	--	--
3.			23.0	--	--	15.3	5	70	--	--
4.			63.0	--	--	58.7	4	15	--	--
5.			9.5	--	--	9.0	3	5	--	--
6.			16.4	--	--	23.5	3	10	--	--
7.			48.0	--	--	44.8	4	15	--	--
8.			2.0	--	--	61.4	3	15	--	--
9.			27.0	--	--	44.8	4	25	--	--
10.			21.0	--	--	30.8	5	45	--	--
11.			27.7	--	--	33.5	4	10	--	--
12.			17.0	--	--	16.5	5	35	--	--
13.			19.0	--	--	9.5	2	2	--	--
14.			38.0	--	--	53.4	5	50	--	--
15.			16.0	--	--	13.3	2	5	--	--
16.			36.0	--	--	43.8	5	40	--	--
17.			45.0	--	--	25.8	5	85	--	--
18.			25.0	--	--	24.8	5	60	--	--
19.			14.0	--	--	9.7	5	35	--	--
20.			19.0	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 26 April 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	NO NEW	GROWTH	48.8	--	--	54.0	5	60	--	--
2.			28.5	--	--	71.5	5	50	--	--
3.			23.0	--	--	15.3	5	70	--	--
4.			63.0	--	--	58.7	4	15	--	--
5.			9.5	--	--	9.0	3	5	--	--
6.			16.4	--	--	23.5	3	10	--	--
7.			48.0	--	--	44.8	4	15	--	--
8.			2.0	--	--	61.4	3	15	--	--
9.			27.0	--	--	44.8	4	25	--	--
10.			21.0	--	--	30.8	5	45	--	--
11.			27.7	--	--	33.5	4	10	--	--
12.			17.0	--	--	16.5	5	35	--	--
13.			19.0	--	--	9.5	2	2	--	--
14.			38.0	--	--	53.5	5	50	--	--
15.			16.0	--	--	13.3	2	5	--	--
16.			36.0	--	--	43.8	5	40	--	--
17.			45.0	--	--	25.8	5	85	--	--
18.			25.0	--	--	24.8	5	60	--	--
19.			14.0	--	--	9.7	5	55	--	--
20.			19.0	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 21 May 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	1.2	--	42.5	--	--	54.0	5	60	--	--
2.	17.0	--	28.5	--	--	71.5	5	50	--	--
3.	1.1	--	19.5	--	--	15.3	5	70	--	--
4.	1.1	--	49.5	--	--	58.7	4	15	--	--
5.	1.1	--	9.0	--	--	9.0	3	5	--	--
6.	1.2	--	18.0	--	--	23.5	3	10	--	--
7.	1.1	--	50	--	--	44.8	4	15	--	--
8.	1.1	--	7.0	--	--	61.4	3	15	--	--
9.	1.1	--	25.4	--	--	44.8	4	25	--	--
10.	1.1	--	18.4	--	--	30.8	5	45	--	--
11.	1.1	--	46	--	--	33.5	4	10	--	--
12.	1.1	--	16.5	--	--	16.6	5	35	--	--
13.	1.1	--	18.5	--	--	9.5	2	2	--	--
14.	1.1	--	33	--	--	53.4	5	50	--	--
15.	1.1	--	14	--	--	13.3	2	5	--	--
16.	1.1	--	28	--	--	43.8	5	40	--	--
17.	1.1	--	24	--	--	25.8	5	85	--	--
18.	17.0	--	25.0	--	--	24.8	5	60	--	--
19.	1.0	--	12.0	--	--	9.7	5	55	--	--
20.	1.1	--	20.5	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 4 June 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	2.0	--	51.0	--	--	54.0	5	60	--	--
2.	2.0	--	30.0	--	--	71.5	5	50	--	--
3.	3.0	--	20.2	--	--	15.3	5	70	.5	--
4.	3.0	--	51.5	--	--	58.7	4	15	1.0	--
5.	2.0	--	11.0	--	--	9.0	3	5	--	--
6.	2.5	--	17.5	--	--	23.5	3	10	--	--
7.	3.1	--	47.8	--	--	44.8	4	15	2.5	--
8.	2.1	--	8.0	--	--	61.4	3	15	--	--
9.	3.2	--	28.0	--	--	44.8	4	25	2.5	--
10.	2.5	--	19.6	--	--	30.8	5	45	--	--
11.	3.3	--	29.2	--	--	33.5	4	10	5.5	--
12.	2.5	--	16.7	--	--	16.6	5	35	--	--
13.	3.1	--	18.4	--	--	9.5	2	2	3.0	--
14.	2.5	--	35.4	--	--	53.4	5	50	--	--
15.	3.0	--	14.4	--	--	13.3	2	5	.5	--
16.	3.1	--	36.5	--	--	43.8	5	40	2.0	--
17.	1.5	--	49.4	--	--	25.8	5	99	--	--
18.	1.5	--	28.0	--	--	24.8	5	90	--	--
19.	2.2	--	15.0	--	--	9.7	5	55	--	--
20.	2.5	--	19.0	--	--	13.5	5	90	--	--

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 18 June 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER- CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	47.6	--	--	54.0	5	60	1.0	--
2.	3.2	5.2	29.4	--	--	71.5	5	50	1.0	--
3.	3.2	5.2	21.6	--	--	15.3	5	70	.5	1.5
4.	3.2	5.2	54.1	--	--	58.7	4	15	1.5	3.0
5.	3.2	--	9.7	--	--	9.0	3	5	1.0	--
6.	3.2	5.1	17.1	--	--	23.5	3	10	.5	1.5
7.	3.2	5.2	52.0	--	--	44.8	4	15	.5	1.0
8.	3.2	--	7.0	--	--	61.4	3	15	.5	--
9.	3.2	5.1	25.8	--	--	44.8	4	25	.5	1.0
10.	3.2	5.2	18.3	--	--	30.8	5	45	1.0	4.0
11.	3.3	5.3	28.2	--	--	33.5	4	10	1.5	7.0
12.	3.2	--	18.5	--	--	16.6	5	35	.5	--
13.	3.2	5.3	18.1	--	--	9.5	2	2	1.0	4.0
14.	3.2	5.2	35.6	--	--	53.4	5	50	1.0	2.5
15.	3.2	--	15.4	--	--	13.3	2	5	1.0	--
16.	3.2	5.3	40.3	--	--	43.8	5	40	1.0	3.5
17.	DYING		--	--	--	25.8	5	99	--	--
18.	3.2	--	25.8	--	--	24.8	5	90	.5	--
19.	3.2	--	14.5	--	--	9.7	5	55	.5	--
20.	3.2	5.2	19.6	--	--	13.5	5	90	1.0	2.0

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 11 July 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	3.4	--	47.6	--	--	54.0	5	60	1.0	--	
2.	3.4	--	29.4	--	--	71.5	5	50	1.0	2.0	
3.	3.4	5.4	21.6	--	--	15.3	5	70	.5	2.0	
4.	3.3	5.3	54.1	--	--	58.7	4	15	1.5	4.0	
5.	3.3	--	9.7	--	--	9.0	3	5	1.0	--	
6.	3.4	5.3	17.1	--	--	23.5	3	10	.5	1.5	
7.	3.3	5.3	52.0	--	--	44.8	4	15	.5	3.0	
8.	3.3	--	7.0	--	--	61.4	3	15	.5	--	
9.	3.4	5.4	25.8	--	--	44.8	4	25	.5	4.0	
10.	3.4	5.4	18.3	--	--	30.8	5	45	1.0	4.0	
11.	3.4	5.4	28.2	--	--	33.5	4	10	1.5	--	
12.	3.3	--	18.5	--	--	16.6	5	35	.5	--	
13.	3.3	5.4	18.1	--	--	9.5	2	2	1.0	5.0	
14.	3.3	5.3	35.6	--	--	53.4	5	50	1.0	3.0	
15.	3.3	--	15.4	--	--	13.3	2	5	1.0	--	
16.	3.4	5.4	40.3	--	--	43.8	5	40	1.0	4.5	
17.	3.1	--	--	--	--	25.8	5	99	--	--	Dying
18.	3.2	--	25.8	--	--	24.8	5	95	.5	--	
19.	3.3	--	14.5	--	--	9.7	5	55	.5	--	
20.	3.4	5.3	19.6	--	--	13.5	5	90	1.0	2.5	

TABLE IV. (Continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 30 July 74

PLANT NO.	PHENO. STAGE SCORE VEG.	REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.4	--	39.0	--	--	54.0	5	60	1.0	--
2.	3.4	5.5	27.0	--	--	71.5	5	50	1.0	2.0
3.	3.4	5.5	21.9	--	--	15.3	5	70	1.0	2.0
4.	3.5	5.4	57.8	--	--	58.7	4	15	1.5	4.0
5.	3.4	--	9.0	--	--	9.0	3	5	1.0	--
6.	3.5	5.2	17.3	--	--	23.5	3	10	1.0	1.5
7.	3.4	5.4	46.8	--	--	44.8	4	15	1.0	3.0
8.	3.5	--	6.4	--	--	61.4	3	15	1.0	--
9.	3.5	5.4	25.1	--	--	44.8	4	25	1.0	4.0
10.	3.4	5.4	18.4	--	--	30.8	5	45	1.0	4.0
11.	3.4	--	18.1	--	--	33.5	4	10	1.0	--
12.	3.4	--	15.8	--	--	16.6	5	35	1.0	--
13.	3.6	5.6	17.6	--	--	9.5	2	2	1.5	5.0
14.	3.5	5.5	38.0	--	--	53.4	5	50	1.0	3.0
15.	3.6	--	15.0	--	--	13.3	2	5	1.5	--
16.	3.5	5.6	40.9	--	--	43.8	5	40	1.0	4.5
17.	Dying		44.5	Shriveled up			5	99	.2	--
18.	3.4	--	25.4	Dying		24.8	5	99	.5	--
19.	3.4	--	11.2	--	--	9.7	5	55	.5	--
20.	3.5	5.5	17.8	--	--	13.5	5	90	1.0	2.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 22 Aug 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	4.0	--	37.0	--	--	54.0	5	60	1.0	--	
2.	4.0	--	28.5	--	--	71.5	5	50	1.0	--	
3.	4.0	5.8	20.9	--	--	15.3	5	70	1.0	3.0	
4.	4.0	5.7	54.0	--	--	58.7	4	15	3.0	4.0	
5.	4.0	--	9.0	--	--	9.0	3	5	.5	--	
6.	4.0	--	15.5	--	--	23.5	3	10	1.5	--	
7.	4.0	5.7	49.4	--	--	44.8	4	15	1.0	3.5	Seed heads
8.	4.0	--	8.6	--	--	61.4	3	15	.5	--	Drying
9.	4.0	5.6	27.0	--	--	44.8	4	25	1.0	3.0	Before
10.	4.0	5.7	16.5	--	--	30.8	5	45	1.0	4.3	Maturity
11.	4.0	5.7	29.1	--	--	33.5	4	10	2.0	6.0	
12.	4.0	--	15.9	--	--	16.6	5	35	.5	--	
13.	4.0	5.8	18.1	--	--	9.5	2	2	1.5	4.3	
14.	4.0	5.8	30.7	--	--	53.4	4	50	1.0	3.0	
15.	4.0	--	14.8	--	--	13.3	2	5	1.0	--	
16.	4.0	5.8	39.4	--	--	43.8	5	40	2.0	5.0	
17.	DEAD					25.8	5	100			
18.	14.0	--	16.0	--	--	24.8	5	99	.5	--	Dying
19.	4.0	--	12.0	--	--	9.7	5	55	.5	--	
20.	4.0	5.6	18.8	--	--	13.5	5	90	1.0	3.0	Seed heads dying

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Horse Creek Date 22 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	14.4	--	37.0	--	--	54.0	5	60	1.0	--	
2.	14.5	--	28.5	--	--	71.5	5	50	1.0	--	
3.	14.4	15.8	20.9	--	--	15.3	5	70	1.0	2.0	
4.	14.4	15.8	54.0	--	--	58.7	4	15	1.0	2.5	
5.	14.5	--	9.0	--	--	9.0	3	5	1.0	--	
6.	14.4	--	15.5	--	--	23.5	3	10	1.0	--	
7.	14.5	15.9	49.4	--	--	44.8	4	15	1.0	1.5	
8.	14.5	--	8.6	--	--	61.4	3	15	1.0	--	
9.	14.4	--	27.0	--	--	44.8	4	25	1.0	3.0	Eaten
10.	14.5	15.9	16.5	--	--	30.8	5	45	1.0	4.0	
11.	14.5	15.8	29.1	--	--	33.5	4	10	1.5	7.5	
12.	14.5	--	15.9	--	--	16.6	5	35	1.0	--	
13.	14.5	15.9	18.1	--	--	9.5	2	2	1.5	5.5	
14.	14.4	5.0	30.7	--	--	53.4	5	50	1.5	2.5	Died in Bud
15.	14.4	--	14.8	--	--	13.3	2	5	1.0	--	
16.	14.5	15.9	39.4	--	--	43.8	5	40	1.0	7.0	
17.	14.5	15.9	44.5	87.0	15.0	51.0	4	90	1.5	2.5	New Plant
18.	14.5	--	16.0	--	--	24.8	5	97	1.0	--	
19.	14.4	--	12.0	--	--	9.7	5	55	1.0	--	
20.	14.4	--	18.8	--	--	13.5	5	90	1.0	--	

AGROPYRON SMITHII Study Area Mesa Antelope Date 30 March 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	1.1	--	.1	1.1	--	--	1	
2.	1.0	--	.1	.4	--	--	1	
3.	------	------	------	------	------	------	2	Dead
4.	1.0	--	.1	.6	--	--	2	
5.	1.1	--	.1	1.4	--	--	2	
6.	1.1	--	.1	1.9	--	--	1	
7.	1.0	--	.1	.4	--	--	2	
8.	1.0	--	.1	.7	--	--	1	
9.	1.2	--	.1	2.0	--	--	1	
10.	1.0	--	.1	.9	--	--	1	
11.	1.1	--	.1	1.2	--	--	1	
12.	1.1	--	.1	1.7	--	--	4	
13.	1.1	--	.1	1.6	--	--	1	
14.	1.3	--	.1	3.4	--	--	1	
15.	1.2	--	.1	2.8	--	--	2	
16.	1.2	--	.1	2.8	--	--	2	
17.	1.2	--	.1	2.1	--	--	2	
18.	1.0	--	.1	.8	--	--	2	
19.	1.1	--	.1	1.2	--	--	1	
20.	1.1	--	.1	1.6	--	--	2	

AGROPYRON SMITHII Study Area Mesa Antelope Date 23 May 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	3.7	--	.1	14.8	--	--	1
2.	2.3	--	.2	9.6	--	--	1
3.	4.2	--	.2	13.7	--	--	2
4.	3.3	--	.1	9.1	--	--	2
5.	3.7	--	.2	14.0	--	--	2
6.	4.1	--	.1	12.9	--	--	1
7.	3.6	--	.1	9.7	--	--	2
8.	3.7	--	.2	17.3	--	--	1
9.	3.6	--	.1	14.2	--	--	1
10.	3.6	--	.1	9.0	--	--	1
11.	3.6	--	.2	12.3	--	--	1
12.	3.7	--	.2	11.0	--	--	4
13.	4.2	--	.2	11.0	--	--	1
14.	3.7	--	.2	19.9	--	--	1
15.	3.3	--	.2	14.7	--	--	2
16.	3.3	--	.1	15.3	--	--	2
17.	2.8	--	.1	15.2	--	--	2
18.	2.3	--	.1	4.4	--	--	2
19.	2.5	--	.1	9.6	--	--	1
20.	3.1	--	.1	8.6	--	--	2

AGROPYRON SMITHII Study Area Mesa Antelope Date 20 June 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.8	--	.2	15.6	--	--	1	
2.	3.7	--	.2	11.1	--	--	1	
3.	3.8	--	.2	12.9	--	--	2	
4.	2.9	--	.1	8.0	--	--	2	
5.	3.5	--	.2	16.8	--	--	2	
6.	3.6	--	.1	13.1	--	--	1	
7.	2.9	--	.1	13.9	--	--	2	
8.	2.9	--	.2	18.0	--	--	1	
9.	2.9	--	.2	14.7	--	--	1	
10.	2.8	--	.2	11.1	--	--	1	
11.	2.9	--	.1	10.2	--	--	1	
12.	2.9	--	.2	13.0	--	--	4	
13.	3.3	--	.2	12.1	--	--	1	
14.	3.8	--	.2	19.6	--	--	1	
15.	4.1	5.0	.2	12.7	--	--	2	
16.	3.7	--	.2	14.5	--	--	2	
17.	3.7	--	.2	16.4	--	--	2	
18.	2.9	--	.1	4.4	--	--	2	
19.	2.9	--	.1	10.0	--	--	1	Dying
20.	3.5	--	.1	6.0	--	--	2	

AGROPYRON SMITHII Study Area Mesa Antelope Date 15 November 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.2	19.1	--	--	1
2.	17.0	--	.2	11.6	--	--	1
3.	17.0	--	.2	13.3	--	--	2
4.	17.0	--	.1	9.0	--	--	2
5.	17.0	--	.2	15.6	--	--	2
6.	17.0	--	.1	12.8	--	--	1
7.	17.0	--	.1	15.3	--	--	2
8.	17.0	--	.2	19.4	--	--	1
9.	17.0	--	.2	16.7	--	--	1
10.	17.0	--	.2	11.2	--	--	1
11.	17.0	--	.1	14.5	--	--	1
12.	17.0	--	.2	14.4	--	--	4
13.	17.0	--	.2	12.3	--	--	1
14.	17.0	--	.2	19.7	--	--	1
15.	17.0	--	.2	13.2	--	--	2
16.	17.0	--	.2	12.5	--	--	2
17.	17.0	--	.2	16.7	--	--	2
18.	17.0	--	.1	4.6	--	--	2
19.	17.0	--	.1	9.7	--	--	1
20.	17.0	--	.1	5.8	--	--	2

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Mesa Antelope Date 30 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		19.0	--	--	30.0	3	10	--	--
2.	New		26.0	--	--	37.0	4	10	--	--
3.	Growth		36.0	--	--	60.0	4	5	--	--
4.			14.5	--	--	17.5	5	85	--	--
5.			12.0	--	--	19.5	3	5	--	--
6.			23.0	--	--	19.5	3	2	--	--
7.			24.0	--	--	33.2	3	2	--	--
8.			29.0	--	--	12.0	3	10	--	--
9.			25.0	--	--	38.0	4	10	--	--
10.			16.0	--	--	18.5	3	5	--	--
11.			10.0	--	--	12.5	2	2	--	--
12.			27.0	--	--	36.5	5	40	--	--
13.			24.0	--	--	25.0	4	20	--	--
14.			31.0	--	--	35.0	5	40	--	--
15.			13.0	--	--	17.2	3	15	--	--
16.			24.0	--	--	34.5	3	15	--	--
17.			14.0	--	--	36.5	5	30	--	--
18.			15.0	--	--	38.5	3	5	--	--
19.			27.0	--	--	45.0	4	10	--	--
20.			12.0	--	--	24.0	3	30	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Mesa Antelope Date 23 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	1.0	--	17.5	--	--	30.0	3	10	--	--
2.	1.1	--	22.5	--	--	37.0	4	10	--	--
3.	1.1	--	30.5	--	--	60.0	4	5	--	--
4.	1.0	--	15.0	--	--	17.5	5	85	--	--
5.	1.1	--	13.7	--	--	19.5	3	5	--	--
6.	1.1	--	21.5	--	--	19.5	3	2	--	--
7.	1.0	--	21.1	--	--	33.2	3	2	--	--
8.	1.1	--	23.6	--	--	12.0	3	10	--	--
9.	1.1	--	23.9	--	--	38.0	4	10	--	--
10.	1.1	--	17.8	--	--	18.5	3	5	--	--
11.	1.0	--	10.0	--	--	12.5	2	2	--	--
12.	1.1	--	22.6	--	--	36.5	5	40	--	--
13.	1.1	--	26.6	--	--	25.0	4	20	--	--
14.	1.1	--	25.0	--	--	35.0	5	40	--	--
15.	14.9	15.9	12.5	--	--	17.2	3	15	--	--
16.	1.1	--	18.8	--	--	34.5	3	15	--	--
17.	1.1	--	16.9	--	--	36.5	5	30	--	--
18.	1.1	--	16.0	--	--	28.5	3	5	--	--
19.	1.1	--	21.4	--	--	45.0	4	10	--	--
20.	1.1	--	12.1	--	--	24.0	3	30	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Mesa Antelope Date 20 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	16.4	--	--	30.0	3	10	1.5	--
2.	3.2	5.2	23.7	--	--	37.0	4	10	1.5	3.0
3.	3.3	5.3	28.6	--	--	60.0	4	5	2.5	4.5
4.	3.2	--	14.5	--	--	17.5	5	85	1.0	--
5.	3.2	--	14.0	--	--	19.5	3	5	1.0	--
6.	3.4	5.4	25.1	--	--	19.5	3	2	3.5	7.0
7.	3.2	5.2	21.0	--	--	33.2	3	2	1.0	1.5
8.	3.2	5.2	24.2	--	--	12.0	3	10	1.0	3.5
9.	3.2	5.2	24.4	--	--	28.0	4	10	1.5	2.5
10.	3.2	5.2	16.7	--	--	18.5	3	5	1.0	1.5
11.	3.2	--	10.4	--	--	12.5	2	2	1.0	--
12.	3.3	--	24.8	--	--	36.5	5	40	2.0	--
13.	3.2	--	25.0	--	--	25.0	4	20	1.5	--
14.	3.2	5.2	24.9	--	--	35.0	5	40	2.0	3.0
15.	3.1	--	11.9	--	--	17.2	3	15	.5	--
16.	3.2	--	16.2	--	--	34.5	3	15	1.0	--
17.	3.2	--	16.3	--	--	36.5	5	30	1.5	--
18.	3.2	5.2	15.6	--	--	28.5	3	5	1.5	3.0
19.	3.3	5.3	23.4	--	--	45.0	4	10	2.0	3.0
20.	3.2	--	10.7	--	--	24.0	3	30	2.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Mesa Antelope Date 15 Nov 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.3	--	17.2	--	--	30.0	3	10	1.5	--
2.	14.3	15.8	23.5	--	--	37.0	4	10	1.5	5.0
3.	14.4	15.8	28.5	--	--	60.0	4	5	2.0	5.5
4.	14.5	15.9	13.3	--	--	17.5	5	85	1.0	1.0
5.	14.3	15.9	23.1	--	--	19.5	3	5	2.5	7.0
6.	14.3	15.8	25.9	--	--	19.5	3	2	2.5	8.5
7.	14.3	15.9	19.7	--	--	33.2	3	2	1.5	3.0
8.	14.4	15.8	23.6	--	--	12.0	3	10	1.5	2.0
9.	14.3	15.9	25.4	--	--	38.0	4	10	2.0	1.5
10.	14.3	--	16.4	--	--	18.5	3	5	1.5	--
11.	14.4	--	8.9	--	--	12.5	2	2	1.0	--
12.	14.3	--	20.7	--	--	36.5	5	40	2.0	--
13.	14.6	--	24.8	--	--	25.0	4	20	2.0	--
14.	14.4	--	23.5	--	--	35.0	5	40	2.0	3.5
15.	14.7	--	10.9	--	--	17.2	3	15	.5	--
16.	14.4	--	16.1	--	--	34.5	3	15	1.0	--
17.	14.4	--	13.7	--	--	36.5	5	30	2.0	--
18.	14.3	10.0	15.1	--	--	28.5	3	5	2.0	3.5
19.	14.3	15.9	20.8	--	--	45.0	4	10	2.5	4.5
20.	14.4	--	12.1	--	--	24.0	3	30	1.5	--

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Owl Draw Date 3 June 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.3	5.0	.4	18.3	--	--	1	
2.	3.8	--	.3	12.4	--	--	1	
3.	3.6	--	.2	10.3	--	--	1	
4.	3.1	--	.2	16.4	--	--	1	
5.	4.1	--	.4	21.0	--	--	1	
6.	4.3	5.0	.4	19.5	--	--	3	
7.	4.2	--	.3	14.7	--	--	1	
8.	4.2	--	.3	16.9	--	--	2	
9.	3.9	--	.3	18.2	--	--	6	
10.	-----	-----	-----	-----	-----	-----	-----	Dead
11.	4.3	--	.4	16.3	--	--	2	
12.	3.8	--	.2	12.0	--	--	2	
13.	3.2	--	.3	13.0	--	--	2	Eaten
14.	3.8	--	.3	14.0	--	--	2	
15.	4.0	--	.3	19.3	--	--	4	
16.	3.8	--	.3	16.2	--	--	4	
17.	4.3	--	.4	21.4	--	--	1	
18.	3.7	--	.2	8.8	--	--	2	
19.	3.7	--	.2	8.9	--	--	2	
20.	4.2	--	.4	13.8	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Owl Draw Date 17 June 74

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
1.	4.2	--	.4	18.4	--	--	1	
2.	3.9	--	.3	14.2	--	--	1	
3.	-------	-------	-------	-------	-------	-------	-------	Dead
4.	4.1	--	.3	16.8	--	--	1	
5.	4.3	5.1	.4	22.7	--	--	1	
6.	4.3	--	.5	23.2	--	--	3	
7.	4.3	5.0	.5	24.1	--	--	1	
8.	3.8	--	.3	15.6	--	--	2	
9.	4.3	5.2	.3	18.9	--	--	6	
10.	4.3	5.0	.4	21.5	--	--	1	New Plant
11.	4.2	--	.3	14.5	--	--	2	
12.	3.4	--	.1	6.4	--	--	2	Eaten
13.	3.7	--	.3	13.8	--	--	2	
14.	4.2	--	.4	17.9	--	--	2	
15.	4.2	--	.3	19.9	--	--	4	
16.	4.2	--	.3	20.0	--	--	4	
17.	4.3	5.1	.4	25.1	--	--	1	
18.	4.2	--	.3	22.4	--	--	2	
19.	4.1	--	.3	14.2	--	--	2	
20.	4.3	5.3	.4	19.6	--	--	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Owl Draw Date 12 July 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.1	--	.4	18.5	--	--	1	
2.	14.1	--	.3	13.8	--	--	1	
3.	14.0	--	.2	20.8	--	--	2	New Plant
4.	14.0	--	.2	16.7	--	--	1	
5.	14.2	5.3	.4	22.2	13.5	--	1	
6.	14.1	--	.4	24.1	--	--	3	
7.	14.1	--	.3	14.4	--	--	1	
8.	14.1	--	.3	19.0	--	--	2	
9.	14.1	--	.3	20.8	--	--	6	
10.	14.3	--	.2	17.7	--	--	1	
11.	14.6	5.0	.4	16.1	5.5	--	2	
12.	14.2	--	.3	13.5	--	--	2	
13.	14.2	--	.3	12.6	--	--	2	
14.	14.1	5.1	.4	17.9	8.0	--	2	
15.	14.1	--	.3	19.5	--	--	4	
16.	14.2	--	.2	12.9	--	--	4	
17.	14.0	5.0	.4	25.3	12.7	--	1	
18.	14.2	--	.2	11.5	--	--	2	
19.	14.4	--	.1	6.1	--	--	2	
20.	14.6	9.7	.3	22.0	32.7	6	1	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Owl Draw Date 1 August 74

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	14.2	5.6	.4	19.8	15.9	--	1
2.	14.2	--	.3	14.0	--	--	1
3.	14.1	--	.2	21.3	--	--	2
4.	14.1	5.1	.3	16.9	6.5	--	1
5.	14.4	5.2	.4	22.2	11.0	--	1
6.	14.2	--	.4	24.2	--	--	3
7.	14.3	--	.3	15.5	--	--	1
8.	14.2	--	.2	17.6	--	--	2
9.	14.3	5.1	.3	19.8	14.9	--	6
10.	14.4	6.0	.3	21.7	11.0	--	1
11.	14.5	--	.4	16.4	--	--	2
12.	14.1	--	.3	13.8	--	--	2
13.	14.1	--	.3	13.1	--	--	2
14.	14.2	5.2	.4	17.8	8.9	--	2
15.	14.1	5.1	.4	20.0	8.1	--	4
16.	14.3	--	.3	19.9	--	--	4
17.	14.2	5.2	.4	25.3	13.6	--	1
18.	14.3	--	.3	11.5	--	--	2
19.	14.9	--	.1	6.0	--	--	2
20.	14.6	13.5	.3	22.0	32.8	7	1

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Owl Draw Date 3 June 74

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.3	5.0	--	--	7.5	.3	19.1	13.9	--	--		young-dense
2.	4.0	--	--	--	1.0	.3	16.0	--	--	--		young-dense
3.	3.3	--	--	--	.5	.3	21.1	--	--	--		seedling
4.	4.2	--	--	--	.2	.3	16.0	--	--	--		seedling
5.	4.0	--	--	--	6	.3	17.7	--	--	--		young-dense
6.	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		seedling
7.	3.9	--	--	--	.7	.3	28	--	--	--		young-dense
8.	4.2	--	--	--	.2	.2	16.2	--	--	--		seedling
9.	3.3	--	--	--	.3	.3	22.4	--	--	--		seedling
10.	2.8	--	--	--	.3	.2	12.9	--	--	--		seedling
11.	3.3	--	--	--		.2	11.4	--	--	--		seedling
12.	3.3	5.0	--	--	10.7	.3	23.3	--	--	--		intermediate-sparse
13.	3.3	--	--	--	.2	.2	12.0	--	--	--		seedling
14.	4.3	5.0	--	--	5.8	.3	21.1	--	--	--		young-sparse
15.	3.0	--	--	--	.3	.3	12.2	--	--	--		seedling
16.	4.2	--	--	--	18.2	.3	20.6	--	--	--		intermediate-dense
17.	3.4	--	--	--	.2	.2	12.3	--	--	--		seedling
18.	3.8	--	--	--	.3	.3	14.0	--	--	--		seedling
19.	3.7	--	--	--	1.0	.3	21.2	--	--	--		young-dense
20.	3.6	--	--	--	.2	.2	13.9	--	--	--		seedling

TABLE IV. (continued

AGROPYRON SPICATUM Study Area Owl Draw Date 17 June 74

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	4.4	6.5	--	--	7.5	.3	23.6	29.4	6	5		young-dense
2.	4.2	6.1	--	--	1.0	.3	15.3	10.2	--	1		young-dense
3.	4.2	--	--	--	.5	.3	21.9	--	--	--		seedling
4.	4.2	--	--	--	.2	.3	16.3	--	--	--		seedling
5.	4.3	6.7	--	--	6.0	.4	25.5	18.6	5	3		young-dense
6.	3.9	--	--	--	--	.2	15.1	--	--	--		
7.	4.3	--	--	--	.7	.4	30.6	--	--	--		young-dense
8.	3.7	--	--	--	.2	.2	16.7	--	--	--		seedling
9.	4.3	--	--	--	.3	.3	21.5	--	--	--		seedling
10.	4.5	6.7	30.0	14.0	22.0	.4	40.5	44.1	7	76		mature & decadent
11.	4.5	6.6	--	--	12.5	.4	33.7	31.8	5	17		mature & decadent
12.	4.5	6.7	--	--	10.7	.4	33.0	35.0	7	26		intermediate-dense
13.	4.4	6.5	--	--	3.5	.3	22.0	26.8	3	1		insect damage
14.	4.5	6.7	--	--	5.8	.3	27.5	30.1	5	14		young-sparse
15.	4.5	6.7	--	--	.3	.3	12.2	11.9	5	1		seedling
16.	4.5	6.6	--	--	18.2	.4	28.5	33.2	6	17		mature-sparse
17.	4.3	--	--	--	.2	.2	12.3	--	--	--		seedling
18.	4.3	6.3	--	--	1.0	.3	15.9	15.0	3	1		seedling
19.	4.3	--	--	--	1.0	.3	19.4	--	--	--		young-dense
20.	4.4	6.3	--	--	6.0	.3	23.9	19.4	4	1		intermediate-intermediate

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Owl Draw Date 12 July 74

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH.	WIDTH	DIAM.							
			cm.	cm.	cm.	cm.	cm.	cm.				
1.	14.1	11.0	--	--	7.5	.2	23.0	35.5	5	5		
2.	14.1	11.3	--	--	1.0	.3	16.5	13.5	1	1		
3.	14.3	--	--	--	.5	.3	20.7	--	--	--		
4.	14.4	--	--	--	.2	.2	10.6	--	--	--		
5.	14.2	11.3	--	--	6.0	.3	26.8	29.5	5	3		
6.	14.2	--	--	--	--	.2	15.0	--	--	--		
7.	14.2	--	--	--	.7	.3	28.8	--	--	--		
8.	14.3	--	--	--	.2	.2	13.7	--	--	--		
9.	14.1	--	--	--	.3	.3	21.7	--	--	--		
10.	14.2	11.1	--	--	22.0	.4	36.1	48.6	7	68		
11.	14.3	11.5	--	--	12.5	.3	31.0	41.1	6	22		
12.	14.3	11.3	--	--	10.7	.3	26.2	35.4	6	37		
13.	14.3	11.5	--	--	3.5	.3	22.0	31.9	4	1		insect damage
14.	14.3	13.2	--	--	5.8	.3	28.4	37.8	5	17		
15.	14.4	11.2	--	--	.3	.3	12.0	13.7	5	1		
16.	14.3	13.0	--	--	18.2	.3	25.7	35.6	6	8		
17.	14.2	--	--	--	.2	.2	13.3	--	--	--		
18.	14.1	13.3	--	--	1.0	.3	13.6	20.5	2	1		insect damage
19.	14.1	--	--	--	1.0	.2	16.8	--	--	--		
20.	14.1	11.2	--	--	6.0	.3	20.5	25.0	5	1		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Owl Draw Date 1 August 74

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	14.3	15.9	--	--	7.5	.3	23.9	32.5	6	6		
2.	14.2	5.1	--	--	1.0	.3	16.2	8.2	--	--		
3.	14.2	--	--	--	.5	.3	18.1	--	--	--		
4.	14.2	--	--	--	.2	.3	17.3	--	--	--		
5.	14.4	15.8	--	--	6.0	.4	26.2	28	6	3		
6.	14.3	--	--	--	--	.2	14.9	--	--	--		
7.	14.3	5.2	--	--	.7	.3	25.5	10.5	--	--		
8.	14.4	5.1	--	--	.2	.2	14.4	6	--	--		
9.	14.2	--	--	--	.3	.3	21.6	--	--	--		
10.	14.4	15.7	--	--	22.0	.3	39.4	50.3	8	82		
11.	14.4	15.9	--	--	12.5	.3	31.2	40	6	17		
12.	14.5	15.8	--	--	10.7	.2	30.8	42	7	33		
13.	14.5	15.9	--	--	3.5	.3	21	29.9	7	1		
14.	14.4	15.8	--	--	5.8	.3	29.1	37.4	7	14		
15.	14.5	15.9	--	--	.3	.3	12.5	13.6	6	1		
16.	14.5	15.9	--	--	18.2	.2	28.1	38.8	7	17		
17.	14.3	--	--	--	.2	.2	13.4	--	--	--		
18.	14.2	15.9	--	--	1.0	.2	17.7	19.7	5	1		
19.	14.4	6.2	--	--	1.0	.2	21.5	10.7	2	1		mature in boot
20.	14.5	15.9	--	--	6.0	.3	21	25.8	6	1		

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Owl Draw Date 3 June 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	2.8	--	7.0	--	--	5.5	2	0	--	--
2.	3.1	--	13.3	--	--	12.7	2	0	1.0	--
3.	2.3	--	9.1	--	--	11.5	2	1	--	--
4.	3.0	--	11.5	--	--	14.5	3	5	1.0	--
5.	3.0	--	7.5	--	--	10.2	2	0	1.0	--
6.	3.1	--	12.6	--	--	11.5	5	25	1.0	--
7.	3.3	--	13.7	--	--	15.3	5	15	3.0	--
8.	3.0	--	12.6	--	--	15.5	3	5	.5	--
9.	3.1	--	14.1	--	--	24.1	4	1	1.0	--
10.	3.1	--	7.5	--	--	10.4	5	50	.5	--
11.	3.1	--	8.2	--	--	10.8	5	40	.5	--
12.	2.8	--	14.6	--	--	14.7	5	15	--	--
13.	3.2	--	12.8	--	--	8.6	2	5	1.5	--
14.	2.8	--	7.4	--	--	21.6	5	25	--	--
15.	3.1	--	13.2	--	--	41.5	4	5	1.5	--
16.	2.8	--	6.9	--	--	16.0	5	55	--	--
17.	3.0	--	11.9	--	--	19.1	3	0	.5	--
18.	3.0	--	16.7	--	--	33.4	4	10	.5	--
19.	3.1	--	9.5	--	--	7.5	2	1	.2	--
20.	2.5	--	4.5	--	--	3.4	2	0	--	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Owl Draw Date 17 June 74

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.2	--	6.5	--	--	5.5	2	0	.5	--
2.	3.2	--	13.4	--	--	12.7	2	0	.5	--
3.	3.2	--	11.8	--	--	11.5	2	1	.5	--
4.	3.2	--	11.4	--	--	14.5	3	5	.5	--
5.	3.2	--	7.0	--	--	10.2	2	0	1.0	--
6.	3.3	--	12.4	--	--	11.5	5	25	1.5	--
7.	3.3	5.2	13.6	--	--	15.3	5	15	1.5	5.5
8.	3.2	5.1	11.7	--	--	15.5	3	5	.5	2.0
9.	3.2	--	13.1	--	--	24.1	4	1	1.0	--
10.	3.2	--	7.7	--	--	10.4	5	50	1.0	--
11.	3.2	--	8.6	--	--	10.8	5	40	.5	--
12.	3.1	--	12.2	--	--	14.7	5	15	.5	--
13.	3.3	--	8.1	--	--	8.6	2	5	1.5	--
14.	3.2	--	7.2	--	--	21.6	5	25	.5	--
15.	3.3	5.3	19.5	--	--	41.5	4	5	1.0	8.5
16.	3.1	--	6.4	--	--	16.0	5	55	.5	--
17.	3.3	5.2	14.7	--	--	19.1	3	0	1.0	2.5
18.	3.2	--	15.8	--	--	33.4	4	10	1.0	--
19.	3.3	5.3	15.6	--	--	7.5	2	1	1.5	7.0
20.	3.2	--	4.0	--	--	5.4	2	0	.5	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Owl Draw Date 12 July 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	--	6.2	--	--	5.5	2	0	1.5	--
2.	3.3	--	12.4	--	--	12.7	2	0	1.5	--
3.	3.3	--	11.9	--	--	11.5	2	1	1.0	--
4.	3.3	--	10.4	--	--	14.5	3	5	1.5	--
5.	3.4	--	7.7	--	--	10.2	2	0	1.5	--
6.	3.3	--	12.5	--	--	11.5	5	25	1.5	--
7.	3.3	--	15.2	--	--	15.3	5	15	1.0	5.5
8.	3.3	--	17.8	--	--	15.5	3	5	1.5	2.0
9.	3.3	5.4	20.1	--	--	24.1	4	1	1.5	4.0
10.	3.2	--	8.5	--	--	10.4	5	50	1.0	--
11.	3.3	--	8.8	--	--	10.8	5	40	1.5	--
12.	3.2	--	10.5	--	--	14.7	5	15	1.0	--
13.	3.3	--	8.6	--	--	8.6	2	5	1.5	--
14.	3.2	--	11.9	--	--	21.6	5	25	1.0	--
15.	3.4	5.3	27.5	--	--	41.5	4	5	2.0	18.0
16.	3.3	--	7.1	--	--	16.0	5	55	1.5	--
17.	3.3	5.3	14.3	--	--	19.1	3	0	1.5	5.0
18.	3.3	--	16.9	--	--	33.4	4	10	2.0	--
19.	3.3	5.3	23.2	--	--	7.5	2	1	1.5	12.5
20.	3.2	--	3.8	--	--	5.4	2	0	1.0	--

TABLE IV. (continued)

ARTEMISIA NOVA Study Area Owl Draw Date 1 August 74

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.6	--	6.2	--	--	5.5	2	0	1.5	--
2.	3.6	--	12.4	--	--	12.7	2	0	1.5	--
3.	3.5	--	11.9	--	--	11.5	2	1	1	--
4.	3.5	--	10.4	--	--	14.5	3	5	1	--
5.	3.6	--	7.7	--	--	10.2	2	0	1.5	--
6.	3.6	--	12.5	--	--	11.5	5	25	1.5	--
7.	3.6	--	15.2	--	--	15.3	5	15	1.5	--
8.	3.6	5.6	17.8	--	--	15.5	3	5	1.5	8
9.	3.6	5.6	20.1	--	--	24.1	4	1	1.5	9
10.	3.6	--	8.5	--	--	10.4	5	50	1.5	4.0
11.	3.6	--	8.8	--	--	10.8	5	40	1.5	--
12.	3.4	--	10.5	--	--	14.7	5	15	.5	--
13.	3.6	--	8.6	--	--	8.6	2	5	1.5	--
14.	3.6	--	11.9	--	--	21.6	5	25	1.5	--
15.	3.7	5.6	27.5	--	--	41.5	4	5	2	17
16.	3.5	--	7.1	--	--	16.0	5	55	1	18
17.	3.6	5.6	14.3	--	--	19.1	3	0	1.5	5
18.	3.6	--	16.9	--	--	33.4	4	10	1.5	--
19.	3.7	5.6	23.2	--	--	7.5	2	1	2	13.5
20.	3.5	--	3.8	--	--	5.4	2	0	1	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Owl Draw Date 3 June 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	48.0	--	--	55.0	4	15	4.0	--
2.	3.1	--	42.4	--	--	46.5	4	15	3.0	--
3.	3.1	--	23.5	--	--	48.0	5	40	3.0	--
4.	3.1	--	16.8	--	--	11.5	3	40	2.5	--
5.	3.2	--	21.3	--	--	27.6	3	2	4.5	--
6.	--	--	--	--	--	3.5	1	0	--	--
7.	3.1	--	6.0	--	--	5.2	1	0	2.0	--
8.	3.1	--	46.4	--	--	23.9	3	5	2.5	--
9.	2.4	--	51.5	--	--	57.1	4	5	--	--
10.	2.5	--	8.3	--	--	7.5	2	0	--	--
11.	3.1	--	57.2	--	--	65.1	4	20	3.0	--
12.	3.3	--	56.2	--	--	59.5	4	6	6.0	--
13.	3.1	--	7.0	--	--	4.5	1	0	2.5	--
14.	3.2	--	49.0	--	--	67.6	4	10	3.0	--
15.	3.2	--	31.4	--	--	23.0	5	55	4.0	--
16.	3.0	--	11.3	--	--	7.5	2	0	2.0	--
17.	3.0	--	6.7	--	--	5.1	2	0	2.0	--
18.	3.2	--	16.4	--	--	11.8	3	50	4.0	--
19.	3.2	--	8.7	--	--	6.7	2	0	3.5	--
20.	3.2	--	43.7	--	--	32.3	5	30	3.5	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Owl Draw Date 17 June 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.3	51.0	--	--	55.0	4	15	7.0	7.5
2.	3.3	5.3	12.7	--	--	46.5	4	15	4.5	5.5
3.	3.3	5.2	25.8	--	--	48.0	5	40	3.5	7.0
4.	3.3		17.6	--	--	11.5	3	40	4.0	--
5.	3.3	5.2	24.4	--	--	27.6	3	2	6.5	5.0
6.	DEAD									
7.	3.2	--	5.4	--	--	5.2	1	0	1.5	--
8.	3.2	--	21.5	--	--	23.9	3	5	2.0	--
9.	3.2	5.1	53.6	--	--	57.1	4	5	2.5	4.5
10.	3.2	--	8.8	--	--	7.5	2	0	1.0	--
11.	3.3	5.1	54.9	--	--	65.1	4	20	5.5	5.0
12.	3.3	5.3	66.3	--	--	59.5	4	5	8.5	10.5
13.	3.2	--	6.5	--	--	4.5	1	0	2.0	--
14.	3.3	5.3	50.0	--	--	67.6	4	10	4.5	9.0
15.	3.3	--	30.6	--	--	23.0	5	55	4.5	--
16.	3.2	--	10.9	--	--	7.5	2	0	1.5	--
17.	3.2	--	7.1	--	--	5.1	2	0	2.0	--
18.	3.3	--	21.5	--	--	4.8	3	50	3.5	--
19.	3.2	--	9.7	--	--	6.7	2	0	2.0	--
20.	3.3	5.3	45.6	--	--	37.3	5	30	4.0	9.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Owl Draw Date 12 July 74

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
1.	3.4	5.4	51.5	--	--	55.0	4	15	6.5	13.0	
2.	3.4	5.4	52.0	--	--	46.5	4	15	5.0	9.5	
3.	3.4	5.4	27.6	--	--	48.0	5	40	10.5	11.5	
4.	3.4	--	19.0	--	--	11.5	3	40	4.0	--	
5.	3.4	--	25.6	--	--	27.6	3	2	7.0	--	
6.	3.4	5.4	48.7	63.0	41.0	52.0	4	15	7.0	14.5	new plant
7.	3.3	--	5.6	--	--	5.2	1	0	2.0	--	
8.	3.3	--	21.3	--	--	23.9	3	5	2.5	--	
9.	3.3	5.4	56.7	--	--	57.1	4	5	3.5	12.5	
10.	3.3	--	7.7	--	--	7.5	2	0	1.5	--	
11.	3.4	--	54.4	--	--	65.1	4	20	5.0	--	
12.	3.4	5.4	71.5	--	--	59.5	4	5	9.0	16.5	
13.	3.3	--	6.5	--	--	4.5	1	0	1.5	--	
14.	3.4	5.5	61.0	--	--	67.6	4	10	5.0	13.0	
15.	3.4	--	36.1	--	--	23.0	5	55	5.0	--	
16.	3.3	--	8.9	--	--	7.5	2	0	1.5	--	
17.	3.3	--	6.7	--	--	5.1	2	0	2.0	--	
18.	3.4	--	20.5	--	--	11.8	3	50	4.0	--	
19.	3.3	--	9.3	--	--	6.7	2	0	2.0	--	
20.	3.4	5.5	47.7	--	--	32.3	5	30	5.5	13.0	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Owl Draw Date 1 August 74

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.6	5.5	56.4	--	--	55.0	4	15	8.0	14.0
2.	3.5	5.5	49.5	--	--	46.5	4	15	5.5	15.0
3.	3.6	5.5	30.6	--	--	48.0	5	40	10.0	11.5
4.	3.5	--	17.2	--	--	11.5	3	40	6.0	--
5.	3.6	--	25.1	--	--	27.6	3	2	7.0	--
6.	3.5	5.5	27.2	--	--	52.0	4	15	4.0	9.0
7.	3.4	--	5.9	--	--	5.2	1	0	2.5	--
8.	3.4	--	21.3	--	--	23.9	3	5	2.0	--
9.	3.5	5.5	55.4	--	--	57.1	4	5	4.0	13.0
10.	3.4	--	8.7	--	--	7.5	2	0	2.0	--
11.	3.6	--	29.7	--	--	65.1	4	20	7.5	--
12.	3.6	5.5	69.1	--	--	59.5	4	5	11.5	17.5
13.	3.5	--	6.8	--	--	4.5	1	0	2.0	--
14.	3.5	5.5	61.9	--	--	67.6	4	10	5.0	13.5
15.	3.5	--	36.3	--	--	23.0	5	55	5.5	--
16.	3.4	--	9.2	--	--	7.5	2	0	2.5	--
17.	3.4	--	6.9	--	--	5.1	2	0	2.0	--
18.	3.5	--	13.8	--	--	11.8	3	50	4.5	--
19.	3.5	--	9.7	--	--	6.7	2	0	3.5	--
20.	3.5	5.5	48.2	--	--	32.3	5	30	5.0	13.5

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Red Wash #2 Date 11 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	No		.2	22.0	--	--	1
2.	New		.2	28.0	--	--	1
3.	Growth		.2	28.9	--	--	5
4.			.2	26.8	--	--	2
5.			.2	18.8	--	--	1
6.			.2	19.6	--	--	1
7.			.2	25.4	--	--	1
8.			.2	25.4	--	--	8
9.			.2	19.6	--	--	1
10.			.2	24.2	--	--	4
11.			.1	24.0	--	--	1
12.			.2	23.5	--	--	1
13.			.2	18.4	--	--	1
14.			.2	18.2	--	--	5
15.			.2	13.3	--	--	1
16.			.1	13.8	--	--	2
17.			.2	22.4	--	--	2
18.			.2	17.0	--	--	1
19.			.2	14.0	--	--	2
20.			.2	18.8	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Red Wash #2 Date 30 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	1.2	--	.1	2.4	--	--	1
2.	17.0	--	--	--	--	--	1
3.	1.2	--	.1	2.6	--	--	5
4.	17.0	--	--	--	--	--	2
5.	1.0	--	.1	0.4	--	--	1
6.	1.1	--	.1	1.3	--	--	1
7.	1.1	--	.1	1.5	--	--	1
8.	1.2	--	.1	2.6	--	--	8
9.	17.0	--	--	--	--	--	1
10.	1.1	--	.1	1.4	--	--	4
11.	17.0	--	--	--	--	--	1
12.	1.1	--	.1	1.2	--	--	1
13.	1.0	--	.1	0.9	--	--	1
14.	1.0	--	.1	0.7	--	--	5
15.	17.0	--	--	--	--	--	1
16.	1.1	--	.1	1.4	--	--	2
17.	1.1	--	.1	2.7	--	--	2
18.	1.2	--	.1	2.3	--	--	1
19.	1.1	--	.1	1.1	--	--	2
20.	1.2	--	.1	2.1	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Horse Creek Date 7 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.8	--	.1	18.5	--	--	1	
2.	3.9	--	.2	27.1	--	--	1	
3.	4.2	--	.2	22.7	--	--	5	
4.	3.8	--	.1	17.8	--	--	2	
5.	3.6	--	.1	12.0	--	--	1	
6.	4.0	--	.2	21.3	--	--	1	
7.	4.3	--	.2	28.2	--	--	1	
8.	4.2	--	.2	23.1	--	--	8	
9.	--	--	--	--	--	--	--	Dead
10.	3.7	--	.1	17.8	--	--	4	
11.	3.9	--	.2	31.2	--	--	1	
12.	2.8	--	.2	18.0	--	--	1	
13.	3.8	--	.2	14.7	--	--	1	
14.	3.7	--	.2	16.0	--	--	5	
15.	4.2	5.0	.2	10.6	--	--	1	
16.	3.3	--	.1	9.2	--	--	2	
17.	3.8	--	.2	20.0	--	--	2	
18.	3.3	--	.1	13.2	--	--	1	
19.	3.7	--	.1	11.2	--	--	2	
20.	3.7	--	.2	17.5	--	--	2	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Red Wash #2 Date 21 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	4.3	--	.1	19.7	--	--	1	
2.	4.2	--	.3	22.2	--	--	1	
3.	3.8	--	.2	23.1	--	--	5	
4.	4.4	--	.2	20.1	--	--	2	
5.	3.7	--	.1	10.8	--	--	1	
6.	3.9	--	.2	22.0	--	--	1	
7.	3.9	--	.2	30.6	--	--	1	
8.	4.3	--	.3	24.0	--	--	8	
9.	4.4	--	.3	20.7	--	--	1	
10.	3.8	--	.2	15.6	--	--	4	
11.	2.9	--	.2	17.1	--	--		Eaten
12.	4.2	--	.2	21.1	--	--	1	
13.	3.7	--	.1	7.8	--	--	1	
14.	3.8	--	.2	14.3	--	--	5	
15.	14.1	6.7	.2	11.2	13.2	5	1	
16.	3.7	--	.1	9.0	--	--	2	
17.	3.9	--	.2	17.0	--	--	2	
18.	3.8	--	.2	15.4	--	--	1	
19.	4.1	--	.2	12.8	--	--	2	
20.	4.3	--	.2	17.6	--	--	.2	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Red Wash #2 Date 2 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	14.1	--	.2	21.0	--	--	1
2.	14.3	--	.2	25.7	--	--	1
3.	14.3	--	.1	23.2	--	--	5
4.	14.2	5.7	.2	21.4	12.5	--	2
5.	14.3	--	.1	10.5	--	--	1
6.	14.2	--	.2	22.0	--	--	1
7.	14.2	5.6	.2	31.2	11.0	--	1
8.	14.2	--	.2	23.5	--	--	8
9.	14.2	5.7	.2	21.8	12.5	--	1
10.	14.4	--	.1	22.7	--	--	4
11.	14.5	--	.1	25.1	--	--	
12.	14.4	--	.2	19.8	--	--	1
13.	14.8	--	.1	12.2	--	--	1
14.	14.3	--	.1	16.0	--	--	5
15.	14.5	13.8	.2	12.5	15.2	9	1
16.	14.2	--	.1	9.1	--	--	2
17.	14.3	--	.1	17.3	--	--	2
18.	14.2	--	.1	16.1	--	--	1
19.	14.3	--	.2	12.3	--	--	2
20.	14.2	--	.2	16.7	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Red Wash #2 Date 26 Dec 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	17.0	--	.1	21.0	--	--	1
2.	17.0	--	.2	25.7	--	--	1
3.	17.0	--	.1	23.2	--	--	5
4.	17.0	17.0	.2	21.4	12.5	--	2
5.	17.0	--	.1	10.5	--	--	1
6.	17.0	--	.2	22.0	--	--	1
7.	17.0	17.0	.2	31.2	11.0	--	1
8.	17.0	--	.2	23.5	--	--	8
9.	17.0	17.0	.2	21.8	12.5	--	1
10.	17.0	--	.1	22.7	--	--	4
11.	17.0	--	.1	25.1	--	--	
12.	17.0	--	.2	19.8	--	--	1
13.	17.0	--	.1	12.2	--	--	1
14.	17.0	--	.1	16.0	--	--	5
15.	17.0	17.0	.2	12.5	15.2	9	1
16.	17.0	--	.1	9.1	--	--	2
17.	17.0	--	.1	17.3	--	--	2
18.	17.0	--	.1	16.1	--	--	1
19.	17.0	--	.2	12.3	--	--	2
20.	17.0	--	.2	16.7	--	--	2

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Red Wash #2 Date 11 March 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH.	CLUMP WIDTH	CLUMP DIAM.	MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
			cm.	cm.	cm.	cm.	cm.	cm.				
1.	No				.2	.2	27.1	--	--	--		
2.	New				47.0	.2	24.0	--	--	--		Old - decadant
3.	Growth				.5	.2	16.0	--	--	--		
4.					30.0	.2	16.8	--	--	--		Mature - sparse
5.					30.0	.3	44.2	--	--	--		Mature - dense
6.					1.0	.2	14.4	--	--	--		
7.					3.0	.2	20.0	--	--	--		Young - dense
8.					.5	.2	14.6	--	--	--		
9.					22.5	.3	40.7	--	--	--		Mature - dense
10.					1.0	.3	26.6	--	--	--		Young - dense
11.					.1	.3	18.0	--	--	--		
12.					12.5	.3	33.0	--	--	--		Intermediate - sparse
13.					36.0	.2	21.5	--	--	--		Mature - dense
14.					53.0	.3	39.4	--	--	--		Old - sparse
15.					2.0	.3	20.5	--	--	--		
16.					2.0	.3	19.6	--	--	--		
17.					19.0	.3	36.0	--	--	--		Mature - dense
18.					12.0	.2	21.8	--	--	--		Intermediate - sparse
19.					4.0	.2	23.8	--	--	--		Young - sparse
20.					.2	.2	33.4	--	--	--		Seedling

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Red Wash #2 Date 30 March 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	--	--	--	--	--	--	--	--	--	--	--	
2.	1.2	--	65	28	47.0	.3	37.3	--	--	--	--	Old-decadant
3.	1.1	--	--	--	.5	.2	1.8	--	--	--	--	
4.	1.3	--	--	--	30.0	.2	24.5	--	--	--	--	Mature-sparse
5.	1.3	--	--	--	30.0	.2	3.2	--	--	--	--	Mature-dense
6.	1.3	--	--	--	1.0	.2	4.2	--	--	--	--	
7.	1.3	--	--	--	3.0	.2	3.6	--	--	--	--	Young-dense
8.	1.3	--	--	--	.5	.2	5.2	--	--	--	--	
9.	1.3	--	--	--	22.5	.2	4.6	--	--	--	--	Mature-dense
10.	1.0	--	--	--	1.0	.1	1.6	--	--	--	--	Young-dense
11.	1.2	--	--	--	.1	.2	2.8	--	--	--	--	
12.	1.2	--	--	--	12.5	.2	2.6	--	--	--	--	Intermediate-sparse
13.	1.2	--	42	30	36.0	.2	3.0	--	--	--	--	Mature-dense
14.	1.3	--	--	--	53.0	.2	3.3	--	--	--	--	Old-sparse
15.	1.3	--	--	--	2.0	.2	4.0	--	--	--	--	
16.	1.3	--	--	--	2.0	.2	3.0	--	--	--	--	
17.	1.4	--	--	--	19.0	.3	5.2	--	--	--	--	Mature-dense
18.	1.2	--	--	--	13.0	.2	23.5	--	--	--	--	Intermediate-sparse
19.	1.3	--	--	--	4.0	.2	3.4	--	--	--	--	Young-sparse
20.	--	--	--	--	--	--	--	--	--	--	--	

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Red Wash #2 Date 7 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	4.3	6.0	--	--	1.5	.2	23.4	17.0	--	1		New Plant
2.	4.2	5.2	--	--	47.0	.3	23.2	--	--	--		
3.	4.3	5.2	--	--	.5	.3	22.6	--	--	--		
4.	4.3	6.1	--	--	30.0	.3	36.0	26.0	--	1		
5.	4.3	6.3	--	--	30.0	.3	40.1	31.7	3	35		
6.	4.3	6.0	--	--	1.0	.3	24.0	17.0	2	--		
7.	4.3	5.8	--	--	3.0	.3	17.4	--	--	--		
8.	4.2	5.5	--	--	.5	.3	19.4	--	--	--		
9.	4.3	6.2	--	--	22.5	.3	32.0	25.5	2	28		
10.	4.1	--	--	--	1.0	.2	17.0	--	--	--		
11.	4.2	6.0	--	--	.1	.3	22.3	18.0	--	--		
12.	4.3	6.0	--	--	12.5	.3	30.8	21.7	--	13		
13.	4.3	6.0	--	--	36.0	.3	38.7	25.6	--	--		
14.	4.3	6.0	--	--	53.0	.3	33.3	26.1	--	--		
15.	4.3	6.2	--	--	2.0	.3	21.0	18.0	3	3		
16.	4.1	--	--	--	2.0	.2	13.9	--	--	--		
17.	4.3	6.1	--	--	19.0	.3	33.9	30.0	2	16		
18.	4.2	--	--	--	13.0	.2	19.5	--	--	--		
19.	4.2	5.3	--	--	4.0	.3	25.8	--	--	--		
20.	3.9	--	--	--	--	.2	27	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Red Wash #2 Date 21 June 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH	MAX. LEAF HGHT.	MAX. SPIKE HGHT.	NOS. SPIKELETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.	cm.	cm.	cm.				
1.	14.1	6.9	--	--	1.5	.3	35.2	41.0	7	37		
2.	4.8	6.9	--	--	47.0	.3	34.2	33.8	7	20		Old-decadant
3.	4.7	6.7	--	--	.5	.3	24.5	22.5	4	2		
4.	4.7	6.9	--	--	30.0	.3	40.3	43.2	7	45		
5.	14.1	7.0	--	--	30.0	.4	43.0	50.8	9	208		Mature-dense
6.	14.0	6.9	--	--	1.0	.3	23.2	27.5	3	1		
7.	4.8	6.8	--	--	3.0	.3	24.1	28.4	5	4		Young-dense
8.	4.6	6.6	--	--	.5	.3	29.6	25.8	4	1		
9.	14.1	6.9	--	--	22.5	.3	42.6	52.4	9	130		Young-dense
10.	4.8	6.8	--	--	1.0	.3	19.2	19.2	2	1		Young-dense
11.	14.1	6.9	--	--	.1	.3	29.7	36.5	6	10		
12.	14.1	7.1	--	--	12.5	.3	37.4	42.8	7	38		Intermediate-sparse
13.	14.0	6.9	--	--	36.0	.3	28.7	33.2	8	11		Mature-sparse
14.	14.1	6.8	--	--	53.0	.3	42.0	48.3	9	31		Old-sparse
15.	4.8	6.8	--	--	2.0	.3	20.0	25.5	4	2		
16.	4.3	--	--	--	2.0	.2	13.4	--	--	--		
17.	14.1	7.0	--	--	19.0	.3	37.8	41.5	9	103		Mature-dense
18.	4.8	6.8	--	--	13.0	.3	25.7	24.6	4	5		Intermediate-sparse
19.	4.9	7.0	--	--	4.0	.3	30.0	36.4	5	4		Young-sparse
20.	4.3	--	--	--	--	.3	29.0	--	--	--		Seedling

TABLE IV. (continued)

AGROPYRON SPICATUM **Study Area** Red Wash #2 **Date** 1 Aug 1974

PLANT No.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	CLUMP LGTH. cm.	CLUMP WIDTH cm.	CLUMP DIAM. cm.	MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
1.	14.3	13.7	--	--	1.5	.3	34.4	42.1	7	40		
2.	14.2	13.0	--	--	47.0	.4	36.1	45.1	9	13		
3.	14.2	12.8	--	--	.5	.3	26.0	35.0	6	5		
4.	14.3	15.2	--	--	30.0	.3	39.8	54.6	9	41		
5.	14.3	15.7	--	--	30.0	.3	42.2	53.9	10	176		
6.	14.4	15.7	--	--	1.0	.3	27.2	38.5	7	2		
7.	14.4	15.8	--	--	3.0	.3	24.9	35.0	5	3		
8.	14.4	--	--	--	.5	.2	20.3	--	--	--		Eaten
9.	14.4	15.7	--	--	22.5	.3	41.1	62.7	9	140		
10.	14.3	15.5	--	--	1.0	.3	19.7	26.5	2	1		
11.	14.4	15.7	--	--	.1	.3	35.4	48.0	6	10		
12.	14.3	15.3	--	--	12.5	.3	30.7	53.2	9	43		
13.	14.3	15.0	--	--	36.0	.3	42.0	53.7	13	232		
14.	14.2	15.0	--	--	53.0	.3	45.0	48.3	9	211		
15.	14.3	15.0	--	--	2.0	.3	20.7	34.3	6	5		
16.	14.3	--	--	--	.20	.3	14.8	--	--	--		Eaten
17.	14.3	15.1	--	--	19.0	.3	40.8	49.4	14	107		
18.	14.3	15.0	--	--	13.0	.3	28.6	38.9	6	7		
19.	14.4	15.3	--	--	4.0	.3	34.0	43.0	6	5		
20.	14.3	--	--	--	--	.2	28.6	--	--	--		

TABLE IV. (continued)

AGROPYRON SPICATUM Study Area Red Wash #2 Date 26 Dec 1974

PLANT No.	PHENO. STAGE SCORE		CLUMP			MAX. LEAF WIDTH cm.	MAX. LEAF HGHT. cm.	MAX. SPIKE HGHT. cm.	NOS. SPIKE-LETS/ CULM	NOS. REPR. CULMS	NOS. VEG. CULMS	MATURITY
	VEG.	REPR.	LGTH. cm.	WIDTH cm.	DIAM. cm.							
1.	17.0	17.0	--	--	1.5	.3	34.4	42.1	7	40		
2.	17.0	17.0	--	--	47.0	.4	36.1	45.1	9	13		
3.	17.0	17.0	--	--	.5	.3	26.0	35.0	6	5		
4.	17.0	17.0	--	--	30.0	.3	39.8	54.6	9	41		
5.	17.0	17.0	--	--	30.0	.3	42.2	53.9	10	176		
6.	17.0	17.0	--	--	1.0	.3	27.2	38.5	7	2		
7.	17.0	17.0	--	--	3.0	.3	24.9	35.0	5	3		
8.	17.0	---	--	--	.5	.3	20.3	--	--	--		Eaten
9.	17.0	17.0	--	--	22.5	.3	41.1	62.7	9	140		
10.	17.0	17.0	--	--	1.0	.3	19.7	26.5	2	1		
11.	17.0	17.0	--	--	.1	.3	35.4	48.5	6	10		
12.	17.0	17.0	--	--	12.5	.3	30.7	53.2	9	43		
13.	17.0	17.0	--	--	36.0	.3	42.0	53.7	13	232		
14.	17.0	17.0	--	--	53.0	.3	45.0	48.3	9	211		
15.	17.0	17.0	--	--	2.0	.3	20.7	34.3	6	5		
16.	17.0	--	--	--	2.0	.3	14.8	--	--	--		Eaten
17.	17.0	17.0	--	--	19.0	.3	40.8	49.4	14	107		
18.	17.0	17.0	--	--	13.0	.3	28.6	38.9	6	7		
19.	17.0	17.0	--	--	4.0	.3	34.0	43.0	6	5		
20.	17.0	--	--	--	--	.2	28.6	--	--	--		

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 11 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		34.3	--	--	48.5	4	15	--	--
2.	New		42.0	--	--	33.0	5	30	--	--
3.	Growth		35.0	--	--	97.5	4	5	--	--
4.			27.9	--	--	21.2	3	5	--	--
5.			23.3	--	--	27.0	5	15	--	--
6.			17.9	--	--	23.5	3	2	--	--
7.			25.6	--	--	61.0	4	5	--	--
8.			23.5	--	--	22.5	5	40	-	--
9.			26.7	--	--	21.0	3	5	--	--
10.			28.8	--	--	57.0	4	5	--	--
11.			6.0	--	--	8.5	5	75	--	--
12.			34.6	--	--	91.0	4	10	--	--
13.			7.3	--	--	8.8	2	0	--	--
14.			26.3	--	--	60.5	4	5	--	--
15.			10.8	--	--	12.5	5	50	--	--
16.			23.8	--	--	38.5	4	10	--	--
17.			17.8	--	--	41.5	5	15	--	--
18.			43.0	--	--	106.0	4	5	--	--
19.			27.6	--	--	44.0	5	15	--	--
20.			35.0	--	--	50.0	4	15	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 30 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		34.3	--	--	48.4	4	15	--	--
2.			42.0	--	--	33.0	5	30	--	--
3.			35.0	--	--	97.5	4	5	--	--
4.			27.9	--	--	21.0	3	5	--	--
5.			23.3	--	--	27.0	5	15	--	--
6.			17.9	--	--	23.5	3	2	--	--
7.			25.6	--	--	61.0	4	5	--	--
8.			23.5	--	--	22.5	5	40	--	--
9.			26.7	--	--	21.0	3	5	--	--
10.			28.8	--	--	57.0	4	5	--	--
11.			6.0	--	--	8.5	5	75	--	--
12.			34.6	--	--	91.0	4	10	--	--
13.			7.3	--	--	8.8	2	0	--	--
14.			26.3	--	--	60.5	4	5	--	--
15.			10.8	--	--	12.5	5	50	--	--
16.			23.2	--	--	38.5	4	10	--	--
17.			17.8	--	--	41.5	5	15	--	--
18.			43.0	--	--	106.0	4	5	--	--
19.			27.6	--	--	44.0	5	15	--	--
20.			35.0	--	--	50.0	4	15	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 7 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	37.0	--	--	48.5	4	15	2.0	--
2.	3.3	5.1	38.8	--	--	33.0	5	30	2.5	4.0
3.	3.3	5.1	39.3	--	--	97.5	4	5	2.5	3.5
4.	3.2	5.1	30.3	--	--	21.2	3	5	1.0	3.0
5.	3.2	5.0	27.0	--	--	27.0	5	15	1.0	1.5
6.	3.2	--	13.5	--	--	23.5	3	2	1.0	--
7.	3.2	5.0	39.2	--	--	61.0	4	5	1.0	4.0
8.	3.2	--	29.9	--	--	22.5	5	40	1.5	--
9.	3.2	5.0	26.9	--	--	21.0	3	5	1.0	2.0
10.	3.1	5.0	31.8	--	--	57.0	4	5	.5	1.0
11.	3.0	--	6.4	--	--	8.5	5	75	.5	--
12.	3.2	5.1	40.5	--	--	91.0	4	10	2.0	5 0
13.	3.0	--	6.9	--	--	8.8	2	0	.5	--
14.	3.2	5.0	28.4	--	--	60.5	4	5	2.0	1.0
15.	3.0	--	10.2	--	--	12.5	5	50	.5	--
16.	3.2	5.1	28.0	--	--	38.5	4	10	1.5	2.5
17.	3.2	--	17.7	--	--	41.0	5	15	.1	--
18.	3.1	--	40.6	--	--	106.0	4	5	1.5	--
19.	3.2	--	20.4	--	--	44.0	5	15	2.5	--
20.	3.2	--	36.7	--	--	50.0	4	15	1.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 21 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.3	35.7	--	--	48.5	4	15	3.5	8.5
2.	3.4	5.4	47.4	--	--	33.0	5	30	4.5	11.5
3.	3.4	5.4	46.0	--	--	97.5	4	5	3.5	9.5
4.	3.4	5.3	32.2	--	--	21.2	3	5	3.5	6.0
5.	3.3	5.3	24.1	--	--	27.0	5	15	2.5	6.0
6.	3.3	--	17.0	--	--	23.5	3	2	3.0	--
7.	3.3	5.3	41.7	--	--	61.0	4	5	3.0	5.5
8.	3.3	--	23.1	--	--	22.5	5	40	3.0	--
9.	3.3	5.3	27.7	--	--	21.0	3	5	3.0	5.5
10.	3.3	5.3	31.8	--	--	57.0	4	5	2.5	7.0
11.	3.2	--	7.0	--	--	8.5	5	75	1.0	--
12.	3.4	5.4	42.0	--	--	91.0	4	10	4.0	10.0
13.	3.2	--	8.5	--	--	8.8	2	0	1.0	--
14.	3.4	5.3	28.4	--	--	60.0	4	5	4.0	6.0
15.	3.2	--	11.1	--	--	12.5	5	50	1.5	--
16.	3.3	5.3	32.0	--	--	38.5	4	10	3.0	8.5
17.	3.2	--	20.7	--	--	41.5	5	15	2.0	--
18.	3.3	5.3	45.1	--	--	106.0	4	5	3.5	9.0
19.	3.2	5.3	30.6	--	--	44.0	5	15	2.0	5.0
20.	3.2	5.2	41.0	--	--	50.0	4	15	2.0	4.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 2 Aug 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.6	--	18.2	--	--	48.5	4	15	4.0	--
2.	3.6	5.5	30.4	--	--	33.0	5	30	6.0	14.5
3.	3.6	5.5	23.0	--	--	97.5	4	5	5.0	17.0
4.	3.6	5.5	33.6	--	--	21.2	3	5	4.0	8.5
5.	3.5	5.5	25.6	--	--	27.0	5	15	3.0	8.0
6.	3.5	--	14.1	--	--	23.5	3	2	3.0	--
7.	3.5	5.5	43.0	--	--	61.0	4	5	4.0	9.0
8.	3.6	--	20.4	--	--	22.5	5	40	4.0	--
9.	3.5	5.6	31.0	--	--	21.0	3	5	3.0	7.0
10.	3.5	5.5	33.5	--	--	57.0	4	5	4.0	9.0
11.	3.4	--	5.0	--	--	8.5	5	75	.5	--
12.	3.6	5.7	36.6	--	--	91.0	4	10	4.0	12.5
13.	3.4	--	7.3	--	--	8.0	2	0	.5	--
14.	3.6	5.6	35.0	--	--	60.0	4	5	4.0	11.5
15.	3.4	--	10.9	--	--	12.5	5	50	1.0	--
16.	3.5	5.6	31.2	--	--	38.5	4	10	2.5	12.5
17.	3.5	5.4	20.0	--	--	41.5	5	15	2.0	3.5
18.	3.6	5.5	39.8	--	--	106.0	4	5	5.0	9.0
19.	3.5	5.6	27.8	--	--	44.0	5	15	2.5	6.5
20.	3.5	5.5	36.6	--	--	50.0	4	15	2.5	4.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Red Wash #2 Date 26 Dec 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.8	--	18.2	--	--	48.5	4	13	4.0	--
2.	14.8	15.9	30.4	--	--	33.0	5	30	1.0	14.5
3.	14.8	15.9	23.0	--	--	97.5	4	5	5.0	17.0
4.	14.8	15.9	33.6	--	--	21.2	3	5	4.0	8.5
5.	14.8	15.9	25.6	--	--	27.0	5	15	3.0	8.0
6.	14.8	--	14.1	--	--	23.5	3	2	2.0	--
7.	14.8	15.9	43.0	--	--	61.0	4	5	4.0	9.0
8.	14.8	--	20.4	--	--	22.5	5	40	4.0	--
9.	14.8	15.9	31.0	--	--	21.0	3	5	3.0	7.0
10.	14.8	15.9	33.5	--	--	57.0	4	5	4.0	9.0
11.	14.8	--	5.0	--	--	8.5	5	75	.5	--
12.	14.8	15.9	36.6	--	--	91.0	4	10	4.0	12.5
13.	14.8	--	7.3	--	--	8.0	2	0	.5	--
14.	14.8	15.9	35.0	--	--	60.0	4	5	4.0	11.5
15.	14.8	--	10.9	--	--	12.5	5	50	1.0	--
16.	14.8	15.9	31.2	--	--	38.5	4	10	2.5	12.5
17.	14.8	15.9	20.0	--	--	41.5	5	15	2.0	3.5
18.	14.8	15.9	39.8	--	--	106.0	4	5	5.0	9.0
19.	14.8	15.9	27.8	--	--	44.0	5	15	2.5	6.5
20.	14.8	15.9	36.6	--	--	50.0	4	15	2.5	4.5

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 21 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	No		.2	18.7	--	--	1
2.	New		.3	22.0	--	--	4
3.	Growth		.4	23.5	--	--	2
4.			.3	19.4	--	--	2
5.			.3	17.7	--	--	3
6.			.3	31.5	--	--	2
7.			.2	15.5	--	--	1
8.			.2	20.5	--	--	3
9.			.2	21.5	--	--	3
10.			.2	19.0	--	--	3
11.			.5	40.0	--	--	2
12.			.3	23.5	--	--	1
13.			.2	17.3	--	--	1
14.			.3	15.6	--	--	2
15.			.2	11.7	--	--	2
16.			.3	16.5	--	--	1
17.			.3	16.4	--	--	2
18.			.1	19.0	--	--	3
19.			.2	14.7	--	--	1
20.			.1	9.3	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 28 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	1.2	--	.1	2.1	--	--	1
2.	1.2	--	.1	3.1	--	--	1
3.	1.3	--	.2	5.5	--	--	2
4.	1.2	--	.1	2.3	--	--	2
5.	1.3	--	.2	4.0	--	--	3
6.	1.3	--	.2	4.3	--	--	2
7.	1.2	--	.1	2.4	--	--	1
8.	1.2	--	.1	2.0	--	--	3
9.	1.1	--	.1	1.4	--	--	1
10.	1.3	--	.2	4.9	--	--	2
11.	2.1	--	.3	4.5	--	--	1
12.	1.0	--	.1	0.5	--	--	1
13.	17.0	--	--	--	--	--	2
14.	1.1	--	.1	1.3	--	--	1
15.	17.0	--	--	--	--	--	1
16.	1.2	--	.1	2.1	--	--	1
17.	1.2	--	.1	2.8	--	--	1
18.	1.2	--	.1	2.0	--	--	2
19.	1.0	--	.1	0.4	--	--	1
20.	17.0	--	--	--	--	--	2

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 25 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	2.2	--	.1	3.1	--	--	1	
2.	2.5	--	.2	6.4	--	--	1	
3.	2.6	--	.3	9.1	--	--	2	
4.	3.1	--	.3	10.8	--	--	2	
5.	3.2	--	.3	11.4	--	--	3	
6.	4.0	--	.4	18.4	--	--	2	
7.	3.0	--	.2	9.0	--	--	1	
8.	3.1	--	.2	9.9	--	--	3	
9.	3.2	--	.	6.6	--	--	1	
10.	3.3	--	.3	13.4	--	--	2	
11.	4.1	--	.3	10.1	--	--	1	
12.	3.0	--	.2	10.2	--	--	1	
13.	--	--	--	--	--	--	--	Dead
14.	3.0	--	.3	10.9	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	2.2	--	.2	6.8	--	--	1	
17.	2.2	--	.2	10.5	--	--	1	
18.	2.2	--	.1	8.1	--	--	2	
19.	2.0	--	.1	10.2	--	--	1	
20.	2.4	--	.1	5.6	--	--	2	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 22 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.5	--	.2	8.2	--	--	1	
2.	3.1	--	.2	10.4	--	--	1	
3.	3.9	--	.3	15.3	--	--	2	
4.	3.3	--	.3	19.0	--	--	2	
5.	3.8	--	.2	15.6	--	--	3	
6.	4.2	--	.4	24.0	--	--	2	
7.	3.1	--	.2	13.3	--	--	1	
8.	3.3	--	.2	14.2	--	--	3	
9.	3.0	--	.2	10.7	--	--	1	
10.	4.2	--	.4	18.1	--	--	2	
11.	4.3	--	.4	24.4	--	--	1	
12.	3.7q	--	.3	17.0	--	--	1	
13.	2.7	--	.1	5.2	--	--	2	New Plant
14.	4.2	--	.3	16.2	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	3.3	--	.2	12.6	--	--	1	
17.	3.3	--	.2	17.0	--	--	1	
18.	3.3	--	.1	9.4	--	--	2	
19.	3.4	--	.1	12.2	--	--	1	
20.	2.5	--	.1	3.7	--	--	2	Eaten

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 3 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKELETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.5	--	.1	9.0	--	--	1	
2.	3.1	--	.1	7.3	--	--	1	
3.	3.7	--	.3	17.1	--	--	2	
4.	3.4	--	.2	19.0	--	--	2	
5.	3.7	--	.3	15.5	--	--	3	
6.	3.5	--	.4	25.5	--	--	2	
7.	3.1	--	.2	15.0	--	--	1	
8.	3.4	--	.2	14.0	--	--	3	
9.	3.0	--	.2	11.6	--	--	1	
10.	4.3	--	.4	19.7	--	--	2	
11.	4.3	5.0	.4	24.6	--	--	1	
12.	3.5	--	.3	17.4	--	--	1	
13.	2.8	--	.1	4.0	--	--	2	Eaten
14.	3.3	--	.3	16.1	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	3.3	--	.2	13.2	--	--	1	
17.	3.2	--	.2	17.0	--	--	1	
18.	2.8	--	.1	12.2	--	--	2	
19.	2.8	--	.1	12.9	--	--	1	
20.	2.8	--	.1	3.6	--	--	2	Eaten

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 17 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.8	--	.2	9.3	--	--	1	
2.	3.8	--	.3	12.8	--	--	1	
3.	4.3	--	.3	15.7	--	--	2	
4.	3.8	--	.2	15.0	--	--	2	
5.	4.3	--	.2	17.4	--	--	3	
6.	4.3	--	.3	25.5	--	--	2	
7.	4.0	--	.3	13.5	--	--	1	
8.	3.8	--	.3	14.6	--	--	3	
9.	4.4	--	.4	25.8	--	--	1	
10.	4.3	--	.3	19.0	--	--	2	
11.	4.4	5.0	.4	22.6	--	--	1	
12.	3.9	--	.3	17.6	--	--	1	
13.	2.8	--	.1	4.1	--	--	2	Dying
14.	3.5	--	.3	16.6	--	--	1	
15.	--	--	--	--	--	--	--	Dead
16.	2.3	--	.2	12.9	--	--	1	
17.	2.7	--	.1	17.1	--	--	1	
18.	2.9	--	.1	12.0	--	--	2	
19.	2.9	--	.1	12.5	--	--	1	
20.	2.8	--	.1	4.0	--	--	2	Eaten

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 16 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.9	--	.3	18.3	--	--	1	
2.	14.2	--	.2	9.6	--	--	1	
3.	14.2	--	.3	17.5	--	--	2	
4.	14.2	--	.2	19.0	--	--	2	
5.	14.4	--	.2	15.1	--	--	3	
6.	14.2	5.2	.3	25.3	13.0	--	2	
7.	14.1	--	.2	13.4	--	--	1	
8.	14.2	--	.2	13.8	--	--	3	
9.	14.8	--	.1	7.2	--	--	1	Eaten
10.	14.3	5.0	.3	19.1	6.0	--	2	
11.	14.3	5.1	.3	23.2	12.7	--	1	
12.	14.1	--	.2	16.8	--	--	1	
13.	14.1	--	.3	19.5	--	--	2	Dead new plant
14.	14.3	--	.2	16.4	--	--	1	
15.	14.9	--	.1	3.5	--	--	1	Dying
16.	14.4	--	.1	12.7	--	--	1	
17.	14.2	--	.2	16.9	--	--	1	
18.	14.4	--	.1	9.5	--	--	2	
19.	14.8	--	.1	6.8	--	--	1	Eaten
20.	14.4	--	.1	13.2	--	--	2	Dead new plant

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 29 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.7	--	.1	2.6	--	--	1	Eaten off
2.	14.7	--	.1	5.0	--	--	4	Eaten off
3.	14.7	--	.3	13.5	--	--	2	Eaten off
4.	14.7	--	.2	3.5	--	--	2	Eaten off
5.	14.8	--	.2	10.1	--	--	3	Eaten off
6.	14.4	5.0	.3	25.2	--	--	2	
7.	14.5	--	.2	13.6	--	--	1	
8.	14.3	--	.2	16.0	--	--	3	
9.	14.9	--	.2	6.9	--	--	3	
10.	14.4	5.0	.3	19.0	--	--	3	
11.	14.4	5.1	.3	23.3	13.1	--	2	
12.	14.4	--	.2	16.7	--	--	1	
13.	14.4	5.0	.3	18.8	--	--	1	
14.	14.5	--	.3	15.9	--	--	2	
15.	14.8	--	.2	7.0	--	--	2	Dead (new plant)
16.	14.8	--	.1	5.5	--	--	1	Eaten off
17.	14.4	--	.2	16.8	--	--	2	
18.	14.6	--	.1	9.6	--	--	3	
19.	14.7	--	.1	6.8	--	--	1	Eaten off
20.	14.7	--	.1	13.6	--	--	2	Eaten off

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Shoshoni Ant #7 Date 25 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.9	--	.1	1.6	--	--	1	Eaten
2.	14.9	--	.2	5.5	--	--	1	
3.	14.8	--	.2	9.0	--	--	2	Eaten
4.	14.8	--	.2	12.0	--	--	2	Eaten
5.	14.9	--	.2	9.5	--	--	3	Eaten
6.	14.9	--	.3	25.6	--	--	2	
7.	14.9	--	.3	16.5	--	--	1	
8.	14.9	--	.2	8.9	--	--	3	Eaten
9.	14.9	--	.1	7.2	--	--	1	
10.	14.9	--	.3	18.8	--	--	2	
11.	14.9	--	.3	23.7	--	--	1	
12.	14.8	--	.3	18.0	--	--	1	
13.	14.9	--	.3	18.2	--	--	2	Eaten
14.	14.9	--	.2	14.2	--	--	1	
15.	14.9	--	.3	19.6	--	--	1	
16.	14.9	--	.3	16.0	--	--	1	Seed heads
17.	14.9	--	.3	16.4	--	--	1	never matured
18.	14.9	--	.1	9.0	--	--	2	
19.	14.9	--	.1	7.3	--	--	1	
20.	14.9	--	.2	15.0	--	--	2	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni #7 Date 31 Jan 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	14.9	15.9	25.0	--	--	26.6	3	0	--	--
2.	14.9	15.9	26.0	--	--	44.1	5	20	--	--
3.	14.9	15.9	18.5	--	--	29.7	5	60	--	--
4.	14.9	15.9	18.0	--	--	24.4	4	1	--	--
5.	14.9	--	11.0	--	--	23.7	3	0	--	--
6.	14.9	15.9	31.0	--	--	40.8	4	5	--	--
7.	14.9	15.9	14.0	--	--	32.7	5	15	--	--
8.	14.9	15.9	26.5	--	--	41.0	4	10	--	--
9.	14.9	15.9	15.0	--	--	31.9	4	5	--	--
10.	14.9	15.9	15.0	--	--	25.5	4	15	--	--
11.	14.9	15.9	18.0	--	--	31.6	4	5	--	--
12.	14.9	15.9	10.0	--	--	13.0	5	5	--	--
13.	14.9	15.9	19.0	--	--	49.4	5	15	--	--
14.	14.9	15.9	22.0	--	--	23.6	4	3	--	--
15.	14.9	15.9	34.0	--	--	19.4	4	80	--	--
16.	14.9	15.9	10.5	--	--	23.4	4	15	--	--
17.	14.9	15.9	21.0	--	--	33.9	4	2	--	--
18.	14.9	15.9	35.0	--	--	33.1	5	30	--	--
19.	14.9	15.9	17.0	--	--	32.0	3	5	--	--
20.	14.9	15.9	10.5	--	--	31.7	4	20	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 21 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		25.0	--	--	26.6	3	0	--	--
2.	New		26.0	--	--	44.1	5	20	--	--
3.	Growth		18.5	--	--	29.7	5	60	--	--
4.			18.0	--	--	24.4	4	1	--	--
5.			11.0	--	--	23.7	3	0	--	--
6.			31.0	--	--	40.8	4	5	--	--
7.			14.0	--	--	32.7	5	15	--	--
8.			26.5	--	--	41.0	4	10	--	--
9.			15.0	--	--	31.9	4	5	--	--
10.			15.0	--	--	25.5	4	15	--	--
11.			18.0	--	--	31.6	4	5	--	--
12.			10.0	--	--	13.0	5	5	--	--
13.			19.0	--	--	49.4	5	15	--	--
14.			22.0	--	--	23.6	4	3	--	--
15.			34.0	--	--	19.4	4	80	--	--
16.			10.5	--	--	23.4	4	15	--	--
17.			21.0	--	--	33.9	4	2	--	--
18.			35.0	--	--	33.1	5	30	--	--
19.			17.0	--	--	32.0	3	5	--	--
20.			10.5	--	--	31.7	4	20	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 28 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	No		25.0	--	--	26.6	3	0	--	--	
2.	New		26.0	--	--	44.1	5	20	--	--	
3.	Growth		18.5	--	--	29.7	5	60	--	--	
4.			18.0	--	--	24.4	4	1	--	--	
5.			11.0	--	--	23.7	3	0	--	--	
6.			31.0	--	--	40.8	4	5	--	--	
7.			14.0	--	--	32.7	5	15	--	--	
8.			26.5	--	--	41.0	4	10	--	--	
9.			15.0	--	--	31.9	4	5	--	--	
10.			15.0	--	--	25.5	4	15	--	--	
11.			18.0	--	--	31.6	4	5	--	--	
12.			10.0	--	--	13.0	5	5	--	--	
13.			19.0	--	--	49.4	5	15	--	--	
14.			22.0	--	--	23.6	4	3	--	--	
15.			34.0	--	--	19.4	4	80	--	--	
16.			10.5	--	--	23.4	4	15	--	--	
17.			21.0	--	--	33.9	4	2	--	--	
18.			35.0	--	--	33.1	5	30	--	--	
19.			17.0	--	--	32.0	3	5	--	--	
20.			10.5	--	--	31.7	4	20	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 25 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		25.0	--	--	26.6	3	0	--	--
2.	Growth		26.0	--	--	44.1	5	20	--	--
3.	Yet		18.5	--	--	29.7	5	60	--	--
4.			18.0	--	--	24.4	4	1	--	--
5.			11.0	--	--	23.7	3	0	--	--
6.			31.0	--	--	40.8	4	5	--	--
7.			14.0	--	--	32.7	5	15	--	--
8.			26.5	--	--	41.0	4	10	--	--
9.			15.0	--	--	31.9	4	5	--	--
10.			15.0	--	--	25.5	4	15	--	--
11.			18.0	--	--	31.6	4	5	--	--
12.			10.0	--	--	13.0	5	5	--	--
13.			19.0	--	--	49.4	5	15	--	--
14.			22.0	--	--	23.6	4	3	--	--
15.			34.0	--	--	19.4	4	80	--	--
16.			10.5	--	--	23.4	4	15	--	--
17.			21.0	--	--	33.9	4	2	--	--
18.			35.0	--	--	33.1	5	30	--	--
19.			17.0	--	--	32.0	3	5	--	--
20.			10.5	--	--	31.7	4	20	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7n Date 22 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	1.1	--	19.0	--	--	26.6	3	0	--	--
2.	1.1	--	19.5	--	--	44.1	5	20	--	--
3.	1.1	--	14.0	--	--	29.7	5	60	--	--
4.	1.4	--	16.0	--	--	24.4	4	1	--	--
5.	1.2	--	9.3	--	--	23.7	3	0	--	--
6.	1.1	--	26.2	--	--	40.8	4	5	--	--
7.	1.2	--	19.5	--	--	32.7	5	15	--	--
8.	1.1	--	22.0	--	--	41.0	4	10	--	--
9.	1.1	--	14.5	--	--	31.9	4	5	--	--
10.	1.1	--	13.0	--	--	25.5	4	15	--	--
11.	1.1	--	14.0	--	--	31.6	4	5	--	--
12.	1.0	--	10.0	--	--	13.0	5	5	--	--
13.	1.1	--	17.0	--	--	49.4	5	15	--	--
14.	1.1	--	21.5	--	--	23.6	4	3	--	--
15.	1.1	--	22.3	--	--	19.4	4	80	--	--
16.	1.1	--	9.5	--	--	23.4	4	15	--	--
17.	1.2	--	18.0	--	--	33.9	4	2	--	--
18.	1.2	--	21.7	--	--	33.1	5	30.	--	--
19.	1.1	--	20.0	--	--	32.0	3	5	--	--
20.	1.1	--	8.7	--	--	31.7	4	20	--	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 3 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.1	--	20.5	--	--	26.6	3	0	2.5	--
2.	3.1	--	8.9	--	--	44.1	5	20	2.0	--
3.	3.1	--	12.5	--	--	29.5	5	60	1.5	--
4.	3.0	--	16.5	--	--	24.4	4	1	1.0	--
5.	3.0	--	9.5	--	--	23.7	3	0	1.0	--
6.	3.1	--	29.2	--	--	40.8	4	5	2.0	--
7.	3.1	--	19.9	--	--	32.7	5	15	2.0	--
8.	3.1	--	22.3	--	--	41.0	4	10	2.0	--
9.	3.0	--	14.4	--	--	31.9	4	5	1.5	--
10.	3.0	--	12.7	--	--	25.5	4	15	.5	--
11.	3.1	--	11.7	--	--	31.6	4	5	1.5	--
12.	2.5	--	10.9	--	--	13.0	5	5	--	--
13.	3.1	--	19.0	--	--	49.4	5	15	1.0	--
14.	3.1	--	20.6	--	--	23.6	4	3	1.0	--
15.	3.0	--	26.8	--	--	19.4	4	80	.5	--
16.	3.0	--	8.0	--	--	23.4	4	15	.5	--
17.	3.0	--	19.2	--	--	33.9	4	2	.5	--
18.	3.1	--	25.6	--	--	33.1	5	30	1.5	--
19.	3.1	--	17.5	--	--	32.0	3	5	1.0	--
20.	3.2	--	8.4	--	--	31.5	4	20	2.5	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 17 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.1	5.2	20.7	--	--	26.6	3	0	1.5	2.0
2.	3.1	5.1	18.6	--	--	44.1	5	20	1.0	2.0
3.	3.1	5.1	13.9	--	--	29.5	5	60	.5	1.5
4.	3.1	5.2	12.4	--	--	24.4	4	1	.5	1.0
5.	3.2	5.1	9.1	--	--	23.7	3	0	1.0	1.0
6.	3.2	5.2	27.0	--	--	40.8	4	5	1.0	2.0
7.	3.2	5.2	19.6	--	--	32.7	5	15	1.5	2.5
8.	3.2	5.2	24.0	--	--	41.0	4	10	1.0	1.5
9.	3.1	5.1	13.9	--	--	31.9	4	5	.5	1.5
10.	3.2	5.2	12.7	--	--	25.5	4	15	1.5	1.0
11.	3.1	5.1	14.7	--	--	31.6	4	5	.5	2.0
12.	3.1	--	8.5	--	--	13.0	5	5	.5	--
13.	3.1	5.1	20.2	--	--	49.4	5	15	.5	1.0
14.	3.2	5.1	21.5	--	--	23.6	4	3	1.0	1.0
15.	3.1	--	27.1	--	--	19.4	4	80	.5	--
16.	3.1	--	7.2	--	--	23.4	4	15	1.0	--
17.	3.1	5.1	17.7	--	--	33.9	4	2	.5	1.0
18.	3.3	5.2	22.2	--	--	33.1	5	30	3.0	2.5
19.	3.3	5.2	17.5	--	--	32.0	3	5	1.0	4.0
20.	3.1	5.2	8.9	--	--	31.5	4	20	1.0	2.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 16 July 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.2	--	17.5	--	--	26.6	3	0	1.5	--
2.	3.3	5.2	16.1	--	--	44.1	5	20	1.5	1.5
3.	3.3	--	14.3	--	--	29.5	5	60	1.5	--
4.	3.2	5.3	16.0	--	--	24.4	4	1	1.5	2.5
5.	3.3	--	9.5	--	--	23.7	3	0	1.5	--
6.	3.2	5.2	25.8	--	--	40.8	4	5	1.5	2.0
7.	3.2	5.2	20.3	--	--	32.7	5	15	1.5	2.0
8.	3.3	5.3	22.2	--	--	41.0	4	10	1.5	2.5
9.	3.3	5.3	14.8	--	--	31.9	4	5	1.0	2.0
10.	3.3	5.3	11.8	--	--	25.5	4	15	2.0	2.0
11.	3.3	5.3	11.6	--	--	31.6	4	5	1.0	3.0
12.	3.2	--	10.0	--	--	13.0	5	5	1.5	--
13.	3.2	5.2	19.3	--	--	49.4	5	15	1.5	1.5
14.	3.3	5.2	21.6	--	--	23.6	4	3	2.0	1.0
15.	3.3	5.2	26.5	--	--	19.4	4	80	1.0	1.5
16.	3.3	--	6.7	--	--	23.4	4	15	1.5	--
17.	3.3	5.3	18.0	--	--	33.9	4	2	1.0	2.0
18.	3.4	5.4	23.1	--	--	33.1	5	30	2.0	3.5
19.	3.4	5.4	18.2	--	--	32.0	3	5	2.5	4.0
20.	3.3	5.4	10.1	--	--	31.5	4	20	1.5	4.0

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 29 July 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	3.5	--	20.8	--	--	26.6	3	0	2.0	--
2.	3.4	5.4	19.7	--	--	44.1	5	20	1.5	1.5
3.	3.3	5.4	15.0	--	--	29.5	5	60	.5	1.5
4.	3.4	5.5	16.3	--	--	24.4	4	1	1.0	2.0
5.	3.3	5.3	10.4	--	--	23.7	3	0	1.0	1.3
6.	3.4	5.4	25.6	--	--	40.8	4	5	2.5	2.5
7.	3.4	5.2	23.7	--	--	32.7	5	15	1.5	3.0
8.	3.5	5.5	21.1	--	--	41.0	4	10	1.5	3.0
9.	3.5	5.3	14.3	--	--	31.9	4	5	1.0	2.0
10.	3.4	5.4	12.9	--	--	25.5	4	15	1.0	2.0
11.	3.5	5.5	12.2	--	--	31.6	4	5	1.0	3.0
12.	3.5	--	9.1	--	--	13.0	5	5	1.0	--
13.	3.4	5.2	19.7	--	--	49.4	5	15	1.0	1.0
14.	3.5	5.2	21.1	--	--	23.6	4	3	1.5	2.5
15.	3.5	5.4	27.1	--	--	19.4	4	80	1.0	1.0
16.	3.4	--	7.4	--	--	23.4	4	15	1.0	--
17.	3.4	5.4	19.0	--	--	33.9	4	2	1.0	2.0
18.	3.5	5.5	23.7	--	--	33.1	5	30	2.0	3.5
19.	3.6	5.6	18.5	--	--	32.0	3	5	2.0	3.5
20.	3.4	5.4	9.1	--	--	31.5	4	20	1.0	3.5

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Shoshoni Ant #7 Date 25 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.0	--	18.6	--	--	26.6	3	0	2.3	--
2.	14.0	10.3	17.7	--	--	44.1	5	20	2.0	2.0
3.	14.0	10.0	12.6	--	--	29.5	5	60	1.0	2.0
4.	4.9	10.2	14.5	--	--	24.4	4	1	1.5	3.0
5.	4.9	10.0	10.0	--	--	23.7	3	0	1.5	1.5
6.	14.1	--	27.6	--	--	40.8	4	5	2.0	--
7.	14.2	--	19.4	--	--	32.7	5	15	2.5	--
8.	4.9	10.3	23.2	--	--	41.0	4	10	1.0	2.5
9.	14.0	10.2	13.7	--	--	31.9	4	5	1.0	.5
10.	4.8	10.2	12.5	--	--	25.5	4	15	2.0	2.5
11.	14.0	10.3	12.5	--	--	31.6	4	5	1.0	3.0
12.	14.0	--	10.3	--	--	13.0	5	5	1.0	--
13.	14.2	--	20.1	--	--	49.4	5	15	1.5	--
14.	14.0	--	21.3	--	--	23.6	4	3	1.5	--
15.	14.3	--	28.2	--	--	19.4	4	80	1.5	--
16.	14.0	--	7.5	--	--	23.4	4	15	1.5	--
17.	4.8	10.3	17.9	--	--	33.9	4	2	1.0	1.5
18.	4.9	10.4	22.6	--	--	33.1	5	30	1.5	4.0
19.	4.9	10.4	19.0	--	--	32.0	3	5	2.0	4.5
20.	14.2	10.2	10.6	--	--	31.5	4	20	1.0	3.5

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 1 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.							2	
2.	No						1	
3.	New						1	
4.	Growth						1	
5.							1	
6.							1	
7.							3	
8.							1	
9.			.2	6.0	--	--	1	Fall regrowth
10.			.2	5.0	--	--	1	leaves
11.			.2	7.0	--	--	2	
12.			.2	7.0	--	--	2	
13.			.3	9.0	--	--	1	
14.			.2	8.0	--	--	1	
15.			.3	13.0	--	--	4	
16.			.3	9.5	--	--	4	
17.			.3	11.0	--	--	2	
18.			.2	7.5	--	--	3	
19.			.3	11.0	--	--	3	
20.			.3	9.0	--	--	4	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 21 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.							2	
2.	No						1	
3.	New						1	
4.	Growth						1	
5.							1	
6.							1	
7.							3	
8.							1	
9.			.2	6.0	--	--	1	Fall
10.			.2	5.0	--	--	1	Regrowth
11.			.2	7.0	--	--	2	Leaves
12.			.2	7.0	--	--	2	
13.			.3	9.0	--	--	1	
14.			.2	8.0	--	--	1	
15.			.3	13.0	--	--	4	
16.			.3	9.5	--	--	4	
17.			.3	11.0	--	--	2	
18.			.2	7.5	--	--	3	
19.			.3	11.0	--	--	3	
20.			.3	9.0	--	--	4	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 7 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.							2	
2.	No						1	
3.	New						1	
4.	Growth						1	
5.							1	
6.							1	
7.							3	
8.							1	
9.			.2	6.0	--	--	1	Fall
10.			.2	5.0	--	--	1	Regrowth
11.			.2	7.0	--	--	2	Leaves
12.			.2	7.0	--	--	2	
13.			.3	9.0	--	--	1	
14.			.2	8.0	--	--	1	
15.			.3	13.0	--	--	4	
16.			.3	9.5	--	--	4	
17.			.3	11.0	--	--	2	
18.			.2	7.5	--	--	3	
19.			.3	11.0	--	--	3	
20.			.3	9.0	--	--	4	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 28 March 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	1.1	--	.1	1.4	--	--	2
2.	1.1	--	.1	1.5	--	--	1
3.	1.1	--	.1	2.0	--	--	1
4.	17.0	--	--	--	--	--	1
5.	1.0	--	.1	1.1	--	--	1
6.	1.1	--	.1	1.6	--	--	1
7.	1.0	--	.1	0.2	--	--	3
8.	1.1	--	.1	1.8	--	--	1
9.	1.1	--	.1	1.0	--	--	1
10.	17.0	--	--	--	--	--	1
11.	1.0	--	.1	0.6	--	--	2
12.	1.2	--	.1	2.4	--	--	2
13.	1.2	--	.1	2.3	--	--	1
14.	17.0	--	--	--	--	--	1
15.	17.0	--	--	--	--	--	4
16.	1.1	--	.1	1.6	--	--	4
17.	1.2	--	.1	2.3	--	--	2
18.	1.2	--	.1	2.0	--	--	3
19.	17.0	--	--	--	--	--	3
20.	17.0	--	--	--	--	--	4

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 25 April 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	2.5	--	.2	9.5	--	--	1
2.	2.3	--	.2	3.9	--	--	1
3.	2.4	--	.2	5.3	--	--	1
4.	2.1	--	.1	4.1	--	--	1
5.	2.2	--	.1	5.5	--	--	2
6.	2.1	--	.1	6.2	--	--	2
7.	2.4	--	.2	5.7	--	--	3
8.	2.4	--	.2	6.1	--	--	1
9.	2.4	--	.2	5.2	--	--	2
10.	2.4	--	.2	6.8	--	--	2
11.	2.4	--	.2	5.4	--	--	1
12.	2.5	--	.2	6.6	--	--	2
13.	2.2	--	.2	5.3	--	--	1
14.	2.2	--	.2	4.4	--	--	1
15.	2.4	--	.2	7.3	--	--	4
16.	3.0	--	.3	4.7	--	--	6
17.	2.4	--	.2	6.2	--	--	1
18.	2.3	--	.2	6.1	--	--	4
19.	2.5	--	.3	6.9	--	--	4
20.	2.4	--	.2	6.5	--	--	3

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 22 May 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	3.7	--	.2	14.3	--	--	1	
2.	4.2	--	.2	11.7	--	--	1	
3.	4.3	5.0	.3	15.0	--	--	1	
4.	3.7	--	.1	9.5	--	--	1	
5.	3.5	--	.1	6.5	--	--	2	
6.	4.2	5.0	.3	27.8	--	--	2	
7.	3.6	--	.1	10.5	--	--	3	
8.	3.7	--	.2	13.5	--	--	1	
9.	3.7	--	.2	11.0	--	--	2	
10.	3.8	--	.2	15.6	--	--	2	
11.	3.7	--	.2	13.4	--	--	1	Eaten
12.	3.6	--	.2	13.6	--	--	2	
13.	4.0	--	.3	12.0	--	--	1	
14.	3.6	--	.2	9.2	--	--	1	
15.	4.2	5.0	.3	15.3	--	--	4	
16.	3.8	--	.3	14.1	--	--	6	
17.	3.8	--	.3	15.0	--	--	1	
18.	3.7	--	.3	12.3	--	--	4	
19.	3.2	--	.2	12.3	--	--	4	
20.	3.6	--	.2	12.0	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	4.2	--	.2	20.2	--	--	1
2.	3.7	--	.2	11.8	--	--	1
3.	4.2	--	.2	10.0	--	--	1
4.	3.8	--	.1	9.5	--	--	1
5.	3.8	--	.1	9.6	--	--	2
6.	3.7	--	.1	13.0	--	--	2
7.	3.8	--	.1	15.3	--	--	3
8.	3.7	--	.1	12.0	--	--	1
9.	3.8	--	.1	14.5	--	--	2
10.	3.8	--	.2	15.3	--	--	2
11.	3.6	--	.2	16.3	--	--	1
12.	4.2	--	.2	14.5	--	--	2
13.	4.0	--	.3	12.2	--	--	1
14.	3.8	--	.2	11.0	--	--	1
15.	4.3	--	.3	21.7	--	--	4
16.	4.3	5.1	.3	14.3	--	--	6
17.	4.3	--	.3	16.2	--	--	1
18.	4.1	--	.3	16.0	--	--	4
19.	4.1	--	.2	15.4	--	--	4
20.	3.8	--	.2	16.5	--	--	3

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 19 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	4.8	--	.2	19.9	--	--	1
2.	4.8	--	.2	12.2	--	--	1
3.	5.6	--	.2	9.7	--	--	1
4.	3.9	--	.1	9.3	--	--	1
5.	3.9	--	.1	9.5	--	--	2
6.	4.4	--	.2	12.6	--	--	2
7.	5.8	--	.2	15.9	--	--	3
8.	4.8	--	.2	13.0	--	--	1
9.	4.7	--	.2	14.1	--	--	2
10.	3.9	--	.2	16.4	--	--	2
11.	4.7	--	.2	16.0	--	--	1
12.	4.5	--	.2	14.6	--	--	2
13.	4.7	--	.3	12.3	--	--	1
14.	4.2	--	.3	10.7	--	--	1
15.	4.8	--	.2	20.6	--	--	4
16.	4.5	6.7	.3	16.8	19.4	6	6
17.	4.8	--	.3	20.8	--	--	1
18.	4.8	--	.3	16.2	--	--	4
19.	4.8	--	.3	14.8	--	--	4
20.	4.8	--	.3	16.2	--	--	3

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 16 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.2	--	.3	22.5	--	--	1	
2.	14.4	--	.2	12.3	--	--	1	
3.	14.3	--	.2	10.4	--	--	1	
4.	14.4	--	.2	10.3	--	--	1	
5.	14.1	--	.2	9.8	--	--	2	
6.	14.4	--	.2	13.2	--	--	2	
7.	14.1	--	.2	16.3	--	--	3	
8.	14.1	--	.2	13.6	--	--	1	
9.	14.1	--	.2	16.2	--	--	2	
10.	14.1	--	.2	15.3	--	--	2	
11.	14.1	--	.2	16.2	--	--	1	
12.	14.1	--	.2	14.5	--	--	2	
13.	14.5	--	.3	11.5	--	--	1	Eaten
14.	14.1	--	.2	16.0	--	--	1	
15.	14.2	--	.2	20.0	--	--	4	
16.	14.1	10.2	.2	13.9	21.4	6	6	
17.	14.1	--	.2	20.5	--	--	1	
18.	14.1	--	.2	16.1	--	--	4	
19.	14.1	--	.2	11.8	--	--	4	
20.	14.2	--	.2	16.4	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 29 July 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.5	--	.2	17.8	--	--	1	
2.	14.7	--	.2	12.4	--	--	1	
3.	14.7	--	.2	10.0	--	--	1	
4.	14.8	--	.2	10.7	--	--	1	
5.	14.7	--	.1	10.4	--	--	2	
6.	14.8	--	.1	12.7	--	--	2	
7.	14.4	--	.1	6.4	--	--	3	
8.	14.5	--	.2	13.5	--	--	1	
9.	14.6	--	.2	13.4	--	--	2	
10.	14.3	--	.2	15.0	--	--	2	
11.	14.3	--	.2	16.1	--	--	1	
12.	14.5	--	.2	14.4	--	--	2	
13.	14.7	--	.3	11.5	--	--	1	
14.	14.4	--	.3	10.6	--	--	1	
15.	14.5	--	.2	20.6	--	--	4	
16.	14.3	13.0	.3	16.7	--	--	6	Eaten
17.	14.3	13.1	.3	20.3	3.2	--	1	Eaten
18.	14.5	--	.3	16.0	--	--	4	
19.	14.3	--	.3	11.7	--	--	4	
20.	14.3	--	.2	16.1	--	--	3	

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Sweetwater Date 25 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS	
	VEG.	REPR.						
1.	14.2	--	.2	22.5	--	--	1	
2.	14.9	--	.2	12.0	--	--	1	
3.	14.9	--	.2	9.9	--	--	1	
4.	14.8	--	.2	8.9	--	--	1	
5.	14.9	--	.3	20.7	--	--	2	
6.	14.9	--	.1	11.2	--	--	2	
7.	14.9	--	.2	16.3	--	--	3	
8.	14.9	--	.2	12.6	--	--	1	
9.	14.9	--	.1	12.0	--	--	2	
10.	14.8	--	.2	15.3	--	--	2	
11.	14.8	--	.2	16.1	--	--	1	
12.	14.9	--	.2	14.4	--	--	2	
13.	14.9	--	.2	11.5	--	--	1	
14.	14.8	--	.2	15.8	--	--	1	
15.	14.9	--	.2	22.8	--	--	4	
16.	14.8	15.2	.3	16.7	--	--	6	Eaten
17.	14.8	15.2	.3	20.1	--	--	1	Eaten
18.	14.8	--	.2	16.2	--	--	4	
19.	14.9	--	.2	14.7	--	--	4	
20.	16.5	--	.2	15.8	--	--	3	

TABLE IV. (continued)

ARTEMISIA NOVA　　Study Area Sweetwater　　Date 1 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		15.4	--	--	11.8	5	75	--	--
2.	New		11.5	--	--	21.5	5	55	--	--
3.	Growth		13.0	--	--	31.0	4	20	--	--
4.			25.0	--	--	45.8	4	5	--	--
5.			5.3	--	--	7.7	2	5	--	--
6.			14.5	--	--	21.0	3	10	--	--
7.			14.6	--	--	31.9	5	30	--	--
8.			14.0	--	--	18.2	5	80	--	--
9.			22.0	--	--	46.3	4	5	--	--
10.			18.0	--	--	26.0	4	2	--	--
11.			16.5	--	--	27.4	3	0	--	--
12.			20.0	--	--	22.2	4	5	--	--
13.			20.0	--	--	59.2	4	2	--	--
14.			4.3	--	--	6.5	2	0	--	--
15.			8.5	--	--	14.8	5	60	--	--
16.			9.0	--	--	10.3	3	5	--	--
17.			9.5	--	--	40.4	4	15	--	--
18.			13.0	--	--	32.9	4	5	--	--
19.			6.0	--	--	13.2	5	20	--	--
20.			16.0	--	--	37.2	3	2	--	--

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 22 Feb 1974

PLANT NO.	PHENO. STAGE SCORE VEG.	PHENO. STAGE SCORE REPR.	PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
1.	No		15.4	--	--	11.8	5	75	--	--
2.	New		11.5	--	--	21.5	5	55	--	--
3.	Growth		13.0	--	--	31.0	4	20	--	--
4.			25.0	--	--	45.8	4	5	--	--
5.			5.3	--	--	7.7	2	5	--	--
6.			14.5	--	--	21.0	3	10	--	--
7.			14.6	--	--	31.9	5	30	--	--
8.			14.0	--	--	18.2	5	80	--	--
9.			22.0	--	--	46.3	4	5	--	--
10.			18.0	--	--	26.0	4	2	--	--
11.			16.5	--	--	27.4	3	0	--	--
12.			20.0	--	--	22.2	4	5	--	--
13.			20.0	--	--	59.2	4	2	--	--
14.			4.3	--	--	6.5	2	0	--	--
15.			8.5	--	--	14.8	5	60	--	--
16.			9.0	--	--	10.3	3	5	--	--
17.			9.5	--	--	40.4	4	15	--	--
18.			13.0	--	--	32.9	4	5	--	--
19.			6.0	--	--	13.2	5	20	--	--
20.			16.0	--	--	37.2	3	2	--	--

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 28 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		15.4	--	--	11.8	5	75	--	--
2.	New		11.5	--	--	21.5	5	55	--	--
3.	Growth		13.0	--	--	31.0	4	20	--	--
4.			25.0	--	--	45.8	4	5	--	--
5.			5.3	--	--	7.7	2	5	--	--
6.			14.5	--	--	21.0	3	10	--	--
7.			14.6	--	--	31.9	5	30	--	--
8.			14.0	--	--	18.2	5	80	--	--
9.			22.0	--	--	46.3	4	5	--	--
10.			18.0	--	--	26.0	4	2	--	--
11.			16.5	--	--	27.4	3	0	--	--
12.			20.0	--	--	22.2	4	5	--	--
13.			20.0	--	--	59.2	4	2	--	--
14.			4.3	--	--	6.5	2	0	--	--
15.			8.5	--	--	14.8	5	60	--	--
16.			9.0	--	--	10.3	3	5	--	--
17.			9.5	--	--	40.4	4	15	--	--
18.			13.0	--	--	32.9	4	5	--	--
19.			6.0	--	--	13.2	5	20	--	--
20.			16.0	--	--	37.2	3	2	--	--

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 25 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	No		15.4	--	--	11.8	5	75	--	--	
2.	New		11.5	--	--	21.5	5	55	--	--	
3.	Growth		13.0	--	--	31.0	4	20	--	--	
4.			25.0	--	--	45.8	4	5	--	--	
5.			5.3	--	--	7.7	2	5	--	--	
6.			14.5	--	--	21.0	3	10	--	--	
7.			14.6	--	--	31.9	5	30	--	--	
8.			14.0	--	--	18.2	5	80	--	--	
9.			22.0	--	--	46.3	4	5	--	--	
10.			18.0	--	--	26.0	4	2	--	--	
11.			16.5	--	--	27.4	3	0	--	--	
12.			20.0	--	--	22.2	4	5	--	--	
13.			20.0	--	--	59.2	4	2	--	--	
14.			4.3	--	--	6.5	2	0	--	--	
15.			8.5	--	--	14.8	5	60	--	--	
16.			9.0	--	--	10.3	3	5	--	--	
17.			9.5	--	--	40.4	4	15	--	--	
18.			13.0	--	--	32.9	4	5	--	--	
19.			6.0	--	--	13.2	5	20	--	--	
20.			16.0	--	--	37.2	3	2	--	--	

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 22 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	--	--	15.4	--	--	11.8	5	75	--	--
2.	1.0	--	11.5	--	--	21.5	5	55	--	--
3.	1.0	--	13.0	--	--	31.0	4	20	--	--
4.	1.0	--	25.0	--	--	45.8	4	5	--	--
5.	--	--	5.3	--	--	7.7	2	5	--	--
6.	1.0	--	14.5	--	--	21.0	3	10	--	--
7.	--	--	14.6	--	--	13.9	5	30	--	--
8.	--	--	14.0	--	--	18.2	5	80	--	--
9.	--	--	22.0	--	--	46.3	4	5	--	--
10.	--	--	18.0	--	--	26.0	4	2	--	--
11.	1.0	--	16.5	--	--	27.4	3	0	--	--
12.	1.0	--	20.0	--	--	22.2	4	5	--	--
13.	1.0	--	20.0	--	--	59.2	4	2	--	--
14.	1.0	--	4.3	--	--	6.5	2	0	--	--
15.	--	--	8.5	--	--	14.8	5	60	--	--
16.	--	--	9.0	--	--	10.3	3	5	--	--
17.	--	--	9.5	--	--	40.4	4	15	--	--
18.	--	--	13.0	--	--	32.9	4	5	--	--
19.	--	--	6.0	--	--	13.2	5	20	--	--
20.	1.0	--	16.0	--	--	37.2	3	2	--	--

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.1	--	11.0	--	--	11.8	5	75	.5	--
2.	3.2	5.1	11.1	--	--	21.5	5	55	1.0	4.0
3.	3.3	--	9.8	--	--	31.0	4	20	1.5	--
4.	3.3	5.1	14.3	--	--	45.8	4	5	1.0	3.0
5.	3.0	--	5.5	--	--	7.7	2	5	--	--
6.	3.3	--	10.1	--	--	21.0	3	10	1.0	--
7.	3.0	--	14.1	--	--	13.9	5	30	.5	--
8.	3.1	--	8.2	--	--	18.2	5	80	.5	--
9.	3.1	--	13.2	--	--	46.3	4	5	.5	--
10.	3.1	--	7.0	--	--	26.0	4	2	.5	--
11.	3.3	--	13.0	--	--	27.4	3	0	1.5	--
12.	3.3	5.1	10.1	--	--	22.2	4	5	1.0	2.0
13.	3.3	5.1	21.2	--	--	59.2	4	2	1.0	2.5
14.	3.2	--	4.5	--	--	6.5	2	0	.5	--
15.	3.1	5.1	10.4	--	--	14.8	5	60	.5	2.5
16.	3.1	--	3.3	--	--	10.3	3	5	.5	--
17.	3.0	--	9.5	--	--	40.4	4	15	.5	--
18.	3.0	--	7.4	--	--	32.9	4	5	.5	--
19.	2.5	--	6.6	--	--	13.2	5	20	--	--
20.	3.3	5.1	9.1	--	--	37.2	3	2	1.5	2.5

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 19 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	--	13.2	--	--	11.8	4	75	.5	--
2.	3.2	5.3	14.2	--	--	21.5	5	55	.5	7.5
3.	3.3	5.2	10.7	--	--	31.0	4	20	1.0	3.0
4.	3.3	5.3	16.2	--	--	45.8	4	5	1.0	3.5
5.	3.2	--	5.0	--	--	7.7	2	5	.5	--
6.	3.3	5.3	8.9	--	--	21.0	3	10	1.0	4.0
7.	3.2	5.2	13.0	--	--	13.9	5	30	.5	1.0
8.	3.3	5.3	9.0	--	--	18.2	5	80	1.0	4.0
9.	3.4	--	17.1	--	--	46.3	4	5	2.0	--
10.	3.3	5.3	8.4	--	--	26.0	4	2	1.0	4.5
11.	3.4	5.3	12.9	--	--	27.4	3	0	1.5	3.0
12.	3.3	5.3	10.7	--	--	22.2	4	5	2.0	3.0
13.	3.3	5.3	15.1	--	--	59.2	4	2	1.5	4.0
14.	3.2	--	3.7	--	--	6.5	2	0	.5	--
15.	3.2	5.3	11.6	--	--	14.8	5	60	.5	3.5
16.	3.2	--	3.3	--	--	10.3	3	5	1.0	--
17.	3.2	5.1	9.0	--	--	40.4	4	15	.5	1.0
18.	3.2	--	6.6	--	--	32.9	4	5	.5	--
19.	3.2	--	7.4	--	--	13.2	5	20	.5	--
20.	3.3	5.3	12.1	--	--	37.2	3	2	1.5	6.0

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 16 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.4	5.4	12.7	--	--	11.8	5	75	1.0	4.5
2.	3.4	5.5	16.4	--	--	21.5	5	55	1.0	8.0
3.	3.4	--	10.1	--	--	31.0	4	20	1.0	--
4.	3.5	5.5	18.5	--	--	45.8	4	5	1.5	5.0
5.	3.3	--	4.9	--	--	7.7	2	5	.5	--
6.	3.4	5.4	12.0	--	--	21.0	3	10	1.0	5.5
7.	3.4	--	13.1	--	--	13.9	5	30	1.0	--
8.	3.4	5.4	15.0	--	--	18.2	5	80	1.0	6.5
9.	3.5	--	13.8	--	--	46.3	4	5	1.5	--
10.	3.4	5.4	12.2	--	--	26.0	4	2	1.0	8.0
11.	3.4	5.4	15.3	--	--	27.4	3	0	1.5	5.0
12.	3.4	5.5	14.7	--	--	22.2	4	5	1.5	7.0
13.	3.5	5.5	25.2	--	--	59.2	4	2	1.5	7.5
14.	3.4	--	4.0	--	--	6.5	2	0	1.0	--
15.	3.4	5.4	9.8	--	--	14.8	5	60	1.0	5.0
16.	3.4	--	3.9	--	--	10.3	3	5	1.0	--
17.	3.4	5.4	10.8	--	--	40.4	4	15	1.0	2.5
18.	3.4	--	9.5	--	--	32.9	4	5	1.0	--
19.	3.2	--	5.1	--	--	13.2	5	20	.5	--
20.	3.5	5.5	11.9	--	--	37.2	3	2	1.5	6.0

TABLE IV. (continued)

ARTEMESIA NOVA Study Area Sweetwater Date 25 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.2	--	10.9	--	--	11.8	5	70	.5	--
2.	14.2	13.8	8.5	--	--	21.5	5	55	1.0	7.0
3.	14.2	13.5	8.7	--	--	31.0	4	20	1.0	1.0
4.	14.2	15.2	17.1	--	--	45.8	4	5	1.5	6.0
5.	14.2	--	4.3	--	--	7.7	2	5	1.0	--
6.	14.0	15.5	9.6	--	--	21.0	3	10	1.5	5.5
7.	14.0	--	11.0	--	--	13.9	5	30	1.0	--
8.	14.1	15.7	12.1	--	--	18.2	5	80	1.0	7.5
9.	14.1	--	14.6	--	--	46.3	4	5	2.0	--
10.	14.1	15.0	11.2	--	--	26.0	4	2	1.0	8.0
11.	14.1	13.8	16.1	--	--	27.4	3	0	1.5	6.0
12.	14.1	13.8	15.8	--	--	22.2	4	5	2.0	9.0
13.	14.2	15.0	23.8	--	--	59.2	4	2	2.5	10.0
14.	14.3	--	4.8	--	--	6.5	2	0	1.5	--
15.	14.1	15.5	6.8	--	--	14.8	5	60	1.0	5.2
16.	14.1	--	4.5	--	--	10.3	3	5	1.0	--
17.	14.3	--	12.0	--	--	40.4	4	15	1.0	--
18.	14.3	--	6.3	--	--	32.9	4	5	1.0	--
19.	14.3	--	7.4	--	--	13.2	5	20	.5	--
20.	14.0	15.3	13.8	--	--	37.2	3	2	2.0	6.0

TABLE IV. (continued)

ARTEMESIA TRIDENTATA Study Area Sweetwater Date 1 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	14.9	15.9	17.6	--	--	37.4	4	5	.5	4.5
2.	14.9	--	9.7	--	--	9.7	5	20	.5	--
3.	14.9	15.7	22.0	--	--	37.1	4	15	1.5	4.5
4.	14.9	15.9	40.0	--	--	61.0	4	5	1.5	7.0
5.	14.9	15.5	23.5	--	--	19.4	4	10	1.0	7.0
6.	14.9	--	15.8	--	--	28.8	4	10	1.0	--
7.	14.9	--	7.0	--	--	24.1	5	20	1.5	--
8.	14.9	--	25.0	--	--	16.4	4	1	1.5	--
9.	14.9	15.9	29.0	--	--	37.5	5	20	2.0	6.5
10.	14.9	--	38.0	--	--	19.8	5	40	2.5	--
11.	14.9	15.9	17.5	--	--	94.5	4	3	2.0	6.5
12.	14.9	--	15.5	--	--	12.4	5	55	.5	--
13.	14.9	15.9	18.0	--	--	19.8	3	0	2.0	6.0
14.	14.9	--	14.4	--	--	19.9	5	20	1.0	--
15.	14.9	--	31.0	--	--	85.0	4	2	3.0	--
16.	14.9	--	11.5	--	--	10.3	5	30	.5	--
17.	14.9	--	8.5	--	--	60.0	4	10	.5	--
18.	14.9	15.9	39.0	--	--	82.0	4	15	2.0	6.5
19.	14.9	15.9	28.0	--	--	80.9	4	5	2.0	11.0
20.	14.9	--	30.0	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMESIA TRIDENTATA Study Area Sweetwater Date 11 Feb 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		17.6	--	--	37.4	4	5	.5	4.5
2.			9.7	--	--	9.7	5	20	.5	--
3.			22.0	--	--	37.1	4	15	1.5	4.5
4.			40.0	--	--	61.0	4	5	1.5	7.0
5.			23.5	--	--	19.4	4	10	1.0	7.0
6.			15.8	--	--	28.8	4	10	1.0	--
7.			7.0	--	--	24.1	5	20	1.5	--
8.			25.0	--	--	16.4	4	1	1.5	--
9.			29.0	--	--	37.5	5	20	2.0	6.5
10.			38.0	--	--	19.8	5	40	2.5	--
11.			17.5	--	--	94.5	4	3	2.0	6.5
12.			15.5	--	--	12.4	5	55	.5	--
13.			18.0	--	--	19.8	3	0	2.0	6.0
14.			14.4	--	--	19.9	5	20	1.0	--
15.			31.0	--	--	85.0	4	2	3.0	--
16.			11.5	--	--	10.3	5	30	.5	--
17.			8.5	--	--	60.0	4	10	.5	--
18.			39.0	--	--	82.0	4	15	2.0	6.5
19.			28.0	--	--	80.9	4	5	2.0	11.0
20.			30.0	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 28 March 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No		17.6	--	--	37.4	4	5	.5	4.5
2.	New		9.7	--	--	9.7	5	20	.5	--
3.	Growth		22.0	--	--	37.1	4	15	1.5	4.5
4.			40.0	--	--	61.0	4	5	1.5	7.0
5.			23.5	--	--	19.4	4	10	1.0	7.0
6.			15.8	--	--	28.8	4	10	1.0	--
7.			7.0	--	--	24.1	5	20	1.5	--
8.			25.0	--	--	16.4	4	1	1.5	--
9.			29.0	--	--	37.5	5	20	2.0	6.5
10.			38.0	--	--	19.8	5	40	2.5	--
11.			17.5	--	--	94.5	4	3	2.0	6.5
12.			15.5	--	--	12.4	5	55	.5	--
13.			18.0	--	--	19.8	3	0	2.0	6.0
14.			14.4	--	--	19.9	5	20	1.0	--
15.			31.0	--	--	85.0	4	2	3.0	--
16.			11.5	--	--	10.3	5	30	.5	--
17.			8.5	--	--	60.0	4	10	.5	--
18.			39.0	--	--	82.0	4	15	2.0	6.5
19.			28.0	--	--	80.9	4	5	2.0	11.0
20.			30.0	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 25 April 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	No New Growth		17.6	--	--	37.4	4	5	.5	4.5
2.			9.7	--	--	9.7	5	20	.5	--
3.			22.0	--	--	37.1	4	5	1.5	4.5
4.			40.0	--	--	61.0	4	5	1.5	7.0
5.			23.5	--	--	19.4	4	10	1.0	7.0
6.			15.8	--	--	28.8	4	10	1.0	--
7.			7.0	--	--	24.1	5	20	1.5	--
8.			25.0	--	--	16.4	4	1	1.5	--
9.			29.0	--	--	37.5	5	20	2.0	6.5
10.			38.0	--	--	19.8	5	40	2.5	--
11.			17.5	--	--	94.5	4	3	2.0	6.5
12.			15.5	--	--	12.4	5	55	.5	--
13.			18.0	--	--	19.8	3	0	2.0	6.0
14.			14.4	--	--	19.9	5	20	1.0	--
15.			31.0	--	--	85.0	4	2	3.0	--
16.			11.5	--	--	10.3	5	30	.5	--
17.			8.5	--	--	60.0	4	10	.5	--
18.			39.0	--	--	82.0	4	15	2.0	6.5
19.			28.0	--	--	80.9	4	5	2.0	11.0
20.			30.0	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 22 May 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.	
	VEG.	REPR.									
1.	1.0	--	17.6	--	--	37.4	4	5	--	--	
2.	14.8	--	9.7	--	--	9.7	5	20	--	--	
3.	1.0	--	22.0	--	--	37.1	4	15	--	--	
4.	1.0	--	40.0	--	--	61.0	4	5	--	--	
5.	1.0	--	23.5	--	--	19.4	4	10	--	--	
6.	1.0	--	15.8	--	--	28.8	4	10	--	--	
7.	1.0	--	7.0	--	--	24.1	5	20	--	--	
8.	1.0	--	25.0	--	--	16.4	4	1	--	--	
9.	1.0	--	29.0	--	--	37.5	5	20	--	--	
10.	1.0	--	38.0	--	--	19.8	5	40	--	--	
11.	1.0	--	17.5	--	--	94.5	4	3	--	--	
12.	1.0	--	15.5	--	--	12.4	5	55	--	--	
13.	1.0	--	18.0	--	--	19.8	3	0	--	--	
14.	1.0	--	14.4	--	--	19.9	5	20	--	--	
15.	1.0	--	31.0	--	--	85.0	4	2	--	--	
16.	1.0	--	11.5	--	--	10.3	5	30	--	--	
17.	14.8	--	8.5	--	--	60.0	4	10	--	--	
18.	1.0	--	39.0	--	--	82.0	4	15	--	--	
19.	1.0	--	28.0	--	--	80.9	4	5	--	--	
20.	1.0	--	30.0	--	--	21.5	5	25	--	--	

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.1	--	14.9	--	--	37.4	4	5	--	--
2.	2.5	--	9.2	--	--	9.7	5	20	--	--
3.	3.1	--	20.5	--	--	37.1	4	15	1.5	--
4.	3.2	5.0	36.8	--	--	61.0	4	5	1.5	3.0
5.	3.1	--	20.4	--	--	19.4	4	10	1.0	--
6.	3.1	--	15.7	--	--	28.8	4	10	1.5	--
7.	3.1	--	16.3	--	--	24.1	5	20	1.0	--
8.	3.0	--	6.5	--	--	16.4	4	1	.5	--
9.	3.3	5.1	18.7	--	--	37.5	5	20	2.5	4.0
10.	3.1	--	26.7	--	--	19.8	5	40	1.0	--
11.	3.3	5.1	32.5	--	--	94.5	4	3	2.5	3.5
12.	3.0	--	15.4	--	--	12.4	5	55	.5	--
13.	3.3	5.1	16.2	--	--	19.8	3	0	1.0	2.5
14.	3.0	--	13.8	--	--	19.9	5	20	.5	--
15.	3.2	--	33.8	--	--	85.0	4	2	2.5	--
16.	3.2	--	10.3	--	--	10.3	5	30	1.5	--
17.	2.8	--	9.3	--	--	60.0	4	10	--	--
18.	3.3	5.1	32.0	--	--	82.0	4	15	1.5	2.0
19.	3.2	5.1	21.7	--	--	80.9	4	5	2.0	3.5
20.	3.0	--	12.3	--	--	21.5	5	25	1.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 19 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.2	5.3	19.6	--	--	37.4	4	5	1.5	9.0
2.	3.1	--	9.4	--	--	9.7	5	20	.5	--
3.	3.3	5.3	21.2	--	--	37.1	4	15	2.0	6.0
4.	3.3	5.3	38.2	--	--	61.0	4	5	3.0	6.0
5.	3.3	5.3	31.4	--	--	19.4	4	10	2.0	7.5
6.	3.2	5.3	17.2	--	--	28.8	4	10	1.0	6.0
7.	3.3	--	17.5	--	--	24.1	5	20	2.0	--
8.	3.2	--	6.5	--	--	16.4	4	1	1.0	--
9.	3.3	5.4	25.2	--	--	37.5	5	20	3.0	11.5
10.	3.2	--	25.3	--	--	19.8	5	40	1.0	--
11.	3.3	5.3	33.0	--	--	94.5	4	3	3.0	6.5
12.	3.2	--	14.0	--	--	12.4	5	55	1.0	--
13.	3.2	5.2	14.1	--	--	19.8	3	0	2.0	3.0
14.	3.2	--	13.8	--	--	19.9	5	20	1.5	--
15.	3.3	5.3	34.2	--	--	85.0	4	2	2.5	7.0
16.	3.3	--	9.0	--	--	10.3	5	30	2.5	--
17.	3.2	--	9.3	--	--	60.0	4	10	1.5	--
18.	3.3	5.3	36.6	--	--	82.0	4	15	2.0	4.5
19.	3.3	5.3	23.4	--	--	80.9	4	5	3.0	6.0
20.	3.3	--	12.2	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 16 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	5.4	18.8	--	--	37.4	4	5	2.0	8.5
2.	3.2	--	8.2	--	--	9.7	5	20	1.0	--
3.	3.3	5.3	22.6	--	--	37.1	4	15	2.0	6.0
4.	3.4	5.4	38.6	--	--	61.0	4	5	3.0	8.0
5.	3.3	5.4	17.3	--	--	19.4	4	10	2.0	9.5
6.	3.3	5.4	15.6	--	--	28.8	4	10	2.0	6.5
7.	3.4	--	16.0	--	--	24.1	5	20	2.5	--
8.	3.3	--	10.8	--	--	16.4	4	1	1.5	--
9.	3.4	5.4	19.5	--	--	37.5	5	20	3.0	9.0
10.	3.3	--	22.5	--	--	19.8	5	40	2.5	--
11.	3.4	5.4	42.5	--	--	94.5	4	3	3.0	7.5
12.	3.3	--	13.0	--	--	12.4	5	55	1.5	--
13.	3.4	5.3	14.9	--	--	19.8	3	0	2.5	3.0
14.	3.4	--	12.1	--	--	19.9	5	20	2.5	--
15.	3.4	5.4	36.4	--	--	85.0	4	2	3.0	7.5
16.	3.3	--	9.1	--	--	10.3	5	30	2.0	--
17.	3.3	--	8.7	--	--	60.0	4	10	1.5	--
18.	3.4	5.4	36.1	--	--	82.0	4	15	3.0	6.0
19.	3.4	5.4	18.8	--	--	80.9	4	5	2.5	9.5
20.	3.4	--	10.4	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 29 July 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.5	5.5	13.5	--	--	37.4	4	5	2.0	7.5
2.	3.4	--	7.3	--	--	9.7	5	20	1.5	--
3.	3.5	5.5	20.0	--	--	37.1	4	15	2.0	5.0
4.	3.5	5.6	30.8	--	--	61.0	4	5	2.0	10.0
5.	3.5	--	17.5	--	--	19.4	4	10	2.0	--
6.	3.4	5.4	14.4	--	--	28.8	4	10	1.5	6.5
7.	3.5	--	15.1	--	--	24.1	5	20	2.0	--
8.	3.4	--	7.6	--	--	16.4	4	1	1.5	--
9.	3.6	5.6	22.0	--	--	37.5	5	20	4.5	9.0
10.	3.5	--	21.7	--	--	19.8	5	40	1.5	--
11.	3.6	5.6	38.0	--	--	94.5	4	3	4.0	10.5
12.	3.4	--	14.7	--	--	12.4	5	55	1.5	--
13.	3.6	5.5	16.5	--	--	19.8	3	0	2.0	3.0
14.	3.4	--	12.1	--	--	19.9	5	20	1.5	--
15.	3.6	5.6	40.2	--	--	85.0	4	2	3.5	8.5
16.	3.5	--	10.3	--	--	10.3	5	30	1.5	--
17.	3.4	--	11.1	--	--	60.0	4	10	1.0	--
18.	3.5	5.5	38.8	--	--	82.0	4	15	2.5	6.0
19.	3.5	5.5	26.7	--	--	80.9	4	5	2.5	7.0
20.	3.6	--	10.9	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Sweetwater Date 25 Oct 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	4.6	13.0	18.3	--	--	37.4	4	5	1.5	9.0
2.	14.2	--	10.0	--	--	9.7	5	20	.5	--
3.	14.0	12.7	20.0	--	--	37.1	4	15	1.0	6.5
4.	4.8	15.0	39.6	--	--	61.0	4	5	2.5	9.0
5.	4.8	12.5	19.8	--	--	19.4	4	10	1.7	10.0
6.	4.8	13.5	20.9	--	--	28.8	4	10	1.5	7.0
7.	14.0	--	16.2	--	--	24.1	5	20	2.0	--
8.	4.9	--	8.3	--	--	16.4	4	1	1.5	--
9.	14.0	13.5	20.1	--	--	37.5	5	20	3.5	9.5
10.	14.1	15.3	30.7	--	--	19.8	5	40	2.5	9.0
11.	14.1	13.7	35.8	--	--	94.5	4	3	4.5	11.0
12.	14.3	--	15.8	--	--	12.4	5	55	.5	--
13.	14.1	15.4	16.6	--	--	19.8	3	0	2.0	3.0
14.	14.2	13.5	12.1	--	--	19.9	5	20	1.0	1.5
15.	14.0	13.8	37.0	--	--	85.0	4	2	4.0	8.5
16.	4.9	--	11.0	--	--	10.3	5	30	2.0	--
17.	14.0	--	9.4	--	--	60.3	4	10	1.5	--
18.	14.2	13.7	37.8	--	--	82.0	4	15	3.0	6.0
19.	14.1	13.8	19.1	--	--	80.9	4	5	2.5	10.5
20.	4.9	--	12.0	--	--	21.5	5	25	3.0	--

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Upper Gov't Draw Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	3.9	--	.3	20.9	--	--	1
2.	3.8	--	.2	22.3	--	--	7
3.	4.2	--	.3	27.5	--	--	1
4.	3.9	--	.2	22.4	--	--	1
5.	4.3	5.0	.3	19.7	--	--	1
6.	4.4	6.3	.3	30.1	27.8	7	5
7.	4.2	5.0	.3	17.7	--	--	1
8.	3.6	--	.2	12.7	--	--	1
9.	4.3	5.3	.3	.3	22.8	--	2
10.	4.2	--	.3	24.4	--	--	3
11.	4.1	--	.2	17.3	--	--	1
12.	4.3	--	.3	25.5	--	--	1
13.	3.9	--	.2	17.5	--	--	1
14.	4.3	--	.3	23.5	--	--	7
15.	4.2	--	.2	15.7	--	--	1
16.	3.9	--	.2	21.1	--	--	1
17.	3.8	--	.2	23.5	--	--	1
18.	4.3	--	.3	27.7	--	--	1
19.	4.3	5.1	.3	25.2	--	--	1
20.	3.4	--	.3	18.0	--	--	1

TABLE IV. (continued)

AGROPYRON SMITHII Study Area Upper Gov't Draw Date 19 June 1974

PLANT NO.	PHENO. STAGE SCORE		MAX. LEAF WIDTH cm.	MAX. LEAF HGTH. cm.	MAX. SPIKE HGTH. cm.	NOS. SPIKE-LETS/ CULM	NOS. OF VEG. PLANTS
	VEG.	REPR.					
1.	3.8	--	.2	15.6	--	--	1
2.	3.8	--	.2	23.0	--	--	7
3.	3.3	--	.3	27.4	--	--	1
4.	3.8	--	.1	17.0	--	--	1
5.	3.9	--	.3	20.2	--	--	1
6.	2.9	--	.2	23.5	--	--	5
7.	3.8	--	.3	18.4	--	--	1
8.	3.1	--	.1	18.9	--	--	1
9.	4.3	6.2	.3	25.8	24.8	3	2
10.	3.9	--	.3	24.8	--	--	3
11.	3.8	--	.3	18.6	--	--	1
12.	4.2	--	.3	25.5	--	--	1
13.	3.8	--	.2	18.1	--	--	1
14.	3.8	--	.2	25.5	--	--	7
15.	3.6	--	.2	15.3	--	--	1
16.	2.9	--	.2	24.8	--	--	1
17.	3.8	--	.2	24.0	--	--	1
18.	4.3	--	.3	27.7	--	--	1
19.	4.3	6.2	.3	26.5	23.2	3	1
20.	4.2	--	.2	17.9	--	--	1

TABLE IV. (continued)

ARTEMISIA TRIDENTATA Study Area Upper Gov't Draw Date 5 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	--	18.7	--	--	23.0	3	10	3.0	--
2.	3.3	5.1	20.4	--	--	38.0	5	50	2.5	4.5
3.	3.3	5.1	35.0	--	--	37.6	4	20	2.0	4.0
4.	3.3	5.1	25.5	--	--	11.8	5	50	3.0	4.5
5.	3.3	5.1	33.0	--	--	47.7	4	15	3.0	5.0
6.	3.3	5.0	32.5	--	--	39.1	4	10	3.0	5.0
7.	2.8	--	19.6	--	--	21.4	3	2	--	--
8.	3.2	5.0	19.5	--	--	13.8	2	2	2.5	3.0
9.	3.3	5.1	41.0	--	--	43.2	4	15	4.0	6.5
10.	3.3	--	34.0	--	--	35.3	4	10	7.0	--
11.	3.3	5.1	40.0	--	--	37.4	4	20	7.5	6.0
12.	3.2	--	19.7	--	--	16.3	3	15	2.0	--
13.	3.3	5.1	46.5	--	--	54.8	5	20	3.0	6.5
14.	2.8	--	11.4	--	--	13.9	5	35	--	--
15.	3.3	5.1	22.0	--	--	21.6	4	10	3.0	2.5
16.	3.3	5.1	29.4	--	--	37.0	4	20	3.0	5.0
17.	3.3	5.1	29.2	--	--	37.2	4	20	3.0	5.0
18.	3.3	5.1	43.2	--	--	37.6	4	20	3.5	8.5
19.	3.2	5.0	21.7	--	--	15.1	5	40	2.0	4.0
20.	3.3	5.1	42.0	--	--	35.5	4	10	4.0	6.0

TABLE IV. (continued)

ARTEMISIA TRIDENTATA   Study Area Upper Gov't Draw   Date 19 June 1974

PLANT NO.	PHENO. STAGE SCORE		PLANT HGHT. cm.	PLANT LNGTH. cm.	PLANT WIDTH cm.	PLANT DIAM. cm.	PLANT AGE CLASS	DEAD BRANCH PER-CENT	NEW VEG. TWIG LNGTH. cm.	NEW SEED STALK LNGTH. cm.
	VEG.	REPR.								
1.	3.3	--	21.1	--	--	23.0	3	10	3.0	--
2.	3.2	5.3	25.0	--	--	38.0	5	50	2.0	8.0
3.	3.2	5.3	34.0	--	--	37.6	4	20	1.5	7.5
4.	3.3	5.3	29.9	--	--	11.8	5	50	3.0	6.5
5.	3.3	5.3	35.6	--	--	47.7	4	15	2.5	12.0
6.	3.3	5.3	37.2	--	--	39.1	4	10	3.0	8.5
7.	3.1	--	18.9	--	--	21.4	3	2	.5	--
8.	3.2	5.3	21.8	--	--	13.8	2	2	2.0	6.0
9.	3.3	5.4	43.0	--	--	43.2	4	15	4.0	14.0
10.	3.3	5.3	37.3	--	--	35.3	4	10	5.5	10.5
11.	3.3	5.4	43.3	--	--	37.4	4	20	5.0	13.5
12.	3.2	--	19.3	--	--	16.3	3	15	2.0	--
13.	3.3	5.3	42.0	--	--	54.8	5	10	3.0	10.5
14.	3.1	--	11.9	--	--	13.9	5	35	.5	--
15.	3.3	5.2	21.5	--	--	21.6	4	10	3.0	4.0
16.	3.3	5.3	33.6	--	--	37.0	4	20	3.5	8.5
17.	3.3	5.4	34.6	--	--	37.2	4	20	3.5	11.3
18.	3.3	5.4	47.9	--	--	37.6	4	20	4.0	13.8
19.	3.2	5.2	20.7	--	--	15.1	5	40	2.0	5.0
20.	3.3	5.3	42.4	--	--	35.5	4	10	3.5	9.2

TABLE V. INDEPENDENT AND DEPENDENT VARIABLES USED IN STEP-WISE MULTIPLE REGRESSION ANALYSES.

Variable No.	
1	Soil temperature at 15" depth on pheno. sampling date. °C
2	Soil moisture % at 0-6" depth on pheno. sampling date.
3	Soil moisture % at 6-12" depth on pheno. sampling date.
4	Soil moisture % at 18-24" depth on pheno. sampling date.
5	Soil moisture % at 0-6" depth one month previous
6	Soil moisture % at 6-12" depth one month previous
7	Soil moisture % at 18-24" depth one month previous
8	Yearly precipitation total (inches)
9	Oct. 15-April 15 precipitation accumulation (inches)
10	April 15-July 1 precipitation accumulation (inches)
11	July 1-Sept. 1 precipitation accumulation (inches)
12	Sept. 1-Oct. 15 precipitation accumulation (inches)
13	Total forage production (lbs./A./yr.)
14	Species forage production (lbs./A./yr.)
15	Air temperature on pheno sampling date (°C)
16	Maximum air temperature since last sampling date (°C)
17	Minimum air temperature since last sampling date (°C)
18	Reproductive phenophase score
19	Vegetative phenophase score

FIGURE 2. Correlation matrix of all independent and dependent variables used in the analysis

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CORRELATION MATRIX

VARIABLE
 NUMBER       1          2          3          4          5          6          7          8          9          10


   1       1.0000     -.1620     -.2813     -.1508     -.6630     -.5595     -.1547      .2984      .4676      .1550
   2                  1.0000      .7293     -.1595      .6489      .6329      .0652      .0554      .1636     -.1672
   3                             1.0000      .0270      .6079      .7648      .2439     -.0671     -.2254     -.1929
   4                                        1.0000     -.1615     -.0689      .2679      .3415     -.1524      .4160
   5                                                   1.0000      .8481      .1421     -.0606     -.1341     -.0951
   6                                                              1.0000      .2930     -.1678     -.3343     -.2545



   7                                                                         1.0000      .0664     -.4023      .1697
   8                                                                                    1.0000      .6444      .8484
   9                                                                                               1.0000      .2980
  10                                                                                                          1.0000

VARIABLE
 NUMBER      11         12         13         14         15         16         17         18         19


   1       -.0646     -.2700      .0821      .0631      .6310      .8424      .7032      .1969      .6872
   2       -.4499      .3771     -.0436      .1093     -.2363     -.2291      .0445     -.2683     -.2176
   3       -.4578      .6297     -.2492      .2142     -.1912     -.4757      .1944     -.2469     -.2640
   4        .4539     -.2282     -.2827      .2950     -.1147     -.1679     -.1276      .0796     -.1092
   5       -.2787      .3697     -.2116      .1803     -.6479     -.6417     -.3150     -.2887     -.5866
   6       -.4167      .6537     -.1978      .1252     -.5014     -.6700     -.0822     -.1794     -.4260
   7        .0121      .1573     -.3445      .2673     -.1178     -.2935      .0977      .0750      .1017
   8        .4350     -.6762     -.3878      .6628     -.1225      .3124      .1671     -.1649      .1612
   9        .1538     -.6179      .3080      .0122      .0489      .6475      .0475     -.1594      .1826
  10        .5476     -.7351     -.7038      .8478     -.1055      .1296      .0823     -.1270      .0849
  11       1.0000     -.6510     -.1296      .2042     -.1043      .0638     -.2416     -.0246     -.0068
  12                  1.0000      .0948     -.2907     -.0186     -.4711      .1793      .0628     -.1190
  13                             1.0000     -.9420      .1156      .3149     -.2350      .1107      .0391
  14                                        1.0000     -.1267     -.1274      .2756     -.1652      .0277
  15                                                   1.0000      .5853      .4528      .2297      .4855
  16                                                              1.0000      .4020      .1320      .5534
  17                                                                         1.0000      .1160      .5610
  18                                                                                    1.0000      .2204
  19                                                                                               1.0000
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TABLE VI. RESULTS OF STEP-WISE SELECTION PROCESS BY SPECIES

Variable No.		Multiple Correlation Coeficient
	Agropyron smithii	
	Reproductive	
5		29%
	Vegetative	
1		69%
7		72%
5		74%
	Agropyron spicatum	
	Reproductive	
6		55%
	Vegetative	
5		72%
3		78%
17		83%
15		87%
	Artemisia nova	
	Reproductive	
1		70%
3		76%
	Vegetative	
1		77%
17		80%
13		83%
16		87%
	Artemisia tridentata (Wyo.)	
	Reproductive	
5		37%
7		51%
4		56%
14		62%
	Vegetative	
3		48%
9		57%

SECTION II

PRECIPITATION PATTERN STUDY

1974

Introduction

During 1960 over 70 gauges were installed at 6 to 12 mile intervals throughout the Big Horn and Wind River Basins. Since that time approximately 20 gauges in the Big Horn Basin have been discontinued and some 80 gauges have been installed at various exclosures and study sites throughout western Wyoming. These gauges are cans, 12" in height and approximately 2.75" in diameter. This diameter allows reading of precipitation by pouring the water into a 100 ml. readings to inches of rainfall. One hundred ml. is equal to 1" of precipitation. The gauges are read on the same four dates each year -- April 15, July 1, September 1, and October 15. Personnel of the Worland, Lander, Rawlins, Casper, and Rock Springs Districts of the Bureau of Land Management cooperate with the University in reading the instruments. Some gauges are also read by personnel of the Soil Conservation Service and the Wyoming Game and Fish Commission.

The U. S. Weather Bureau and the U. S. Geological Survey precipitation data are used to provide additional information from other locations. This cooperative effort provides an effective network for future evaluation of precipitation patterns. A map of precipitation gauge locations was presented in the 1963 report.

Precipitation data for 1974 from the University gauges are presented in Table 1; those from the U. S. Weather Bureau stations are presented in Table II.

Table I. Precipitation data for 1974 from University of Wyoming gauges for the periods October 15-April 15 (winter), April 15-July 1 (spring), July 1-September 1 (summer) and September 1-October 15 (fall).

Rain Gauge No.	Rain Gauge Name	Winter Apr. 15 '74	Spring July 1 '74	Summer Sept. 1 '74	Fall Oct. 15 '74	Total '74	Long-Term Average	No. of Years
	Big Horn County							
176	Basin Flats Exc.	.65	1.2	.30	.65	2.80	6.20	8
123	Big Flat Exc.	.5	1.15	.30	.80	2.75	5.79	7
24	Halogeton Exc. #1	.74	2.36	1.03	.42	4.55	5.39	15
167	Halogeton Exc. #2	.85	2.18	1.83	.41	5.27	5.79	3
168	Halogeton Exc. #3	.78	2.04	1.47	.32	4.61	5.20	3
12	Horse Creek Exc.	2.10	2.74	1.44	1.10	7.38	11.28	15
113	Horse Haven Exc.	.65	1.20	.34	.80	2.99	6.60	8
21	Kane Deer Exc.	2.78	4.03	1.78	1.25	9.84	12.31	10
149	Kane GRI Exc.	2.72	4.18	1.85	1.57	10.32	13.05	7
116	Kane Seed Exc.	1.00	2.76	1.68	.65	6.09	6.79	7
148	Medicine Lodge GRI Exc.	4.80	2.76	1.21	2.35	12.66	13.82	7
175	Potato Ridge Exc.	1.43	2.34	1.01	.96	5.74	7.99	7
23	Sheep Springs Exc.	3.45	3.63	1.38	1.81	10.27	13.82	14
174	Sheldon Gulch Exc.	1.42	2.40	.90	.92	5.64	7.63	7
	Park County							
147	Big Sage Exc.	1.69	3.33	1.42	.64	7.08	7.51	6
146	Big Sky Exc.	2.00	2.75	1.52	.74	7.01	8.45	6
100	Buffalo Basin Exc.	4.40	3.05	1.16	.56	9.17	10.77	8
145	Hilltop Spring Exc.	5.28	4.27	.98	2.22	12.75	14.75	6
184	Little Dry Creek	RI	2.76	1.72	.64	--	--	--
193	Canyon	3.52	2.48	1.05	1.48	8.53	8.15	2
192	Skyline	.83	1.36	1.13	1.14	4.46	4.46	1
191	State Line	1.54	1.10	.94	.96	4.54	4.83	2
	Washakie County							
1	Ant Hill Worland Exc.	.80	.90	.60	.40	2.70	6.28	15
150	Big Trails GRI Exc.	4.70	2.65	2.53	1.40	11.28	13.11	7
41	Bud Kimball Exc.	3.80	1.03	1.23	2.42	8.48	9.33	13
7	Buffalo Creek Exc.	4.02	1.01	1.67	2.79	9.49	10.41	13
17	Burnt Wagon Exc.	.95	1.35	.56	.35	3.21	5.96	13
179	Chalk Exc.	.75	1.10	.57	.45	2.87	6.13	14
8	Demer Exc.	2.55	.56	.82	2.14	6.07	7.95	15
4	Dutch Nick Flat Exc.	1.35	1.20	.87	.50	3.92	6.74	14
15	15 Mile Study Area (179)	.75	1.10	.57	.45	2.87	6.13	14
177	Hawk Exc.	1.05	1.40	.55	.40	3.40	5.94	13
166	Mills Burn	4.10	2.66	2.26	1.46	10.48	12.81	4
185	Rice Burn	4.10	3.67	.84	1.66	10.27	12.52	2
180	Sand Creek Exc.	1.50	1.10	.63	.50	3.73	6.36	8
36	Smilo Exc.	3.40	.95	1.54	.50	6.39	8.20	14
181	Tolman Ridge Exc.	1.48	1.10	.51	.50	3.59	6.45	8
39	Two Mile Hill Exc.	4.10	1.06	1.35	E2.35	8.86	9.36	14
13	West Pasture Exc.	.55	1.30	.83	.50	3.18	5.51	13
178	Willwood Exc.	.70	1.10	.57	.35	2.72	6.04	14
115	Worland Cattle Co. Exc.	2.24	1.03	.41	2.25	5.93	7.27	7
	Hot Springs County							
117	Big Bend Exc.	3.62	1.10	.52	2.66	7.90	9.57	7
76	Cochran Exc.	E3.62	.91	1.67	2.35	8.55	10.03	14
77	Kirby Creek Exc.	E4.00	1.14	1.00	2.12	8.25	8.94	12
11	Lower Enos Creek Exc.	2.28	2.94	1.26	.69	7.17	10.22	7
133	North Butte - Thermopolis	E4.50	2.00	.71	1.10	8.31	9.16	3
182	Round Top Mountain	4.40	1.60	E0.65	E1.00	7.65	10.52	3
75	Sand Gulch Exc.	E2.50	1.15	1.50	1.61	6.76	8.74	13
22	Upper Enos Creek Exc.	6.32	3.24	RI	RI	--	15.49	8

Table I. Continued

Rain Gauge No.	Rain Gauge Name	Winter Apr. 15 '74	Spring July 1 '74	Summer Sept. 1 '74	Fall Oct. 15 '74	Total '74	Long-Term Average	No. of Years
	Fremont County							
52	Alkali Flats	1.58	1.79	1.30	.96	5.63	8.92	14
5	Ant Plot Exc. (Lander)	RI			DR6.10			
157	Bar X	3.13	.44	.35	.89	4.81	6.64	6
89	Birdseye Ranch	1.30	1.10	.91	.25	3.56	7.70	11
10	Boysen Reservoir Exc.	.70	.90	1.40	.10	3.10	4.89	15
85	Bridger Creek Ranch	4.08	2.31	.62	1.08	8.09	11.12	12
49	Canyon Creek	2.07	2.04	1.23	.98	6.32	8.90	13
59	Carter Divide Exc.	RI						
88	Comet Mine	2.30	1.80	1.22	1.03	6.35	11.70	12
60	Dishpan Butte #1 Exc.	RI						
61	Dishpan Butte #2 Exc.	RI						
86	Dry Creek	1.23	1.42	1.33	.61	4.59	6.86	14
58	Empty Cartridge Exc.	RI						
55	Fraser Seed Plot	2.37	2.29	1.04	.67	6.37	9.60	12
48	Fuller Seed Plot	1.58	1.24	.63	.89	4.34	8.48	14
46	Gibbs Butte	1.08	1.42	.61	.53	3.64	6.96	14
6	Granite Mountain Exc.	3.02	.50	1.44	.48	5.44	8.70	11
62	Hall Creek Divide Exc.	RI						
87	Hoodoo Creek	1.51	1.37	1.00	.55	4.43	6.19	14
64	Hudson	RI						
68	Johnson	1.42	.93	1.42	.40	4.17	7.18	12
63	Little Popo Agie	RI						
56	Logan #1 Exc.	RI						
57	Logan #2 Exc.	RI						
16	Lower Government Draw	RI						
81	Mack Ranch	3.50	2.04	.67	.87	7.08	7.91	10
67	Madden	1.92	3.13	1.03	.70	6.78	9.97	13
14	McGraw Flat Exc.	RI						
47	Muskrat Creek	1.00	.76	.86	.47	3.09	7.03	13
50	Muskrat #5 Exc.	RI						
51	Poison Creek	1.22	1.10	.95	.65	3.92	7.73	12
80	Poison Draw	.98	1.35	.93	.43	3.69	7.08	14
65	Sand Draw	RI						
169	Shoshoni Ant #2 Exc.	2.27	1.27	1.07	E.85	5.46	8.79	3
170	Shoshoni Ant #4 Exc.	1.89	1.30	.96	.91	5.06	8.18	3
158	Shoshoni Ant #7 Exc.	2.12	1.25	1.12	.82	5.31	8.84	4
171	Shoshoni Ant #9 Exc.	1.93	1.29	1.55	.88	5.65	8.34	3
172	Shoshoni Ant #8 Exc.	1.97	1.07	1.31	.78	5.13	8.21	3
173	Shoshoni Ant #11 Exc.	1.94	1.08	1.02	.64	4.68	8.39	3
11	Sweetwater Exc.	1.63	1.78	2.08	.56	6.05	8.36	12
9	Upper Gov't Draw Exc.	RI						
	Natrona County							
143	Arminto Exc.	2.31	2.56	2.80	.70	8.37	5.35	7
109	Bolton Creek Exc.	5.51	2.71	2.34	.55	11.11	8.87	6
141	Donlin Exc.	1.49	2.17	1.72	.70	6.08	7.61	7
110	E. K. Exc.	2.31	2.56	2.80	.70	8.37	5.35	7
142	Merino Exc.	2.13	E2.40	2.32	.60	7.45	9.29	7
108	Mud Springs Exc.	4.47	1.30	3.20	1.17	10.14	11.66	7
107	Owl Draw Exc.	4.17	1.00	3.78	1.20	10.15	9.97	8
144	Poison Sprider Exc.	2.26	4.05	1.65	.65	8.61	9.48	7
106	Stinking Creek Exc.	3.07	2.88	2.03	.80	8.78	9.84	8

Table I. Continued

Rain Gauge No.	Rain Gauge Name	Winter Apr. 15 '74	Spring July 1 '74	Summer Sept. 1 '74	Fall Oct. 15 '74	Total '74	Long-Term Average	No. of Years
	Carbon County							
186	Flattop	5.68	.84	2.52	1.00	10.04	9.69	2
27	Little Robber #5 Exc.	5.53	1.41	2.33	.96	10.23	9.94	12
128	Oppenheimer #1 Exc.	5.33	1.33	1.62	.79	9.07	10.15	7
124	Poison Butte #1 Exc.	5.49	1.49	1.50	.70	9.18	11.13	7
125	Poison Butte #2 Exc.	8.38	1.40	1.18	.78	11.74	11.03	7
130	Powder Rim Pasture C #1	3.75	1.69	1.80	.69	7.93	8.62	7
26	Red Wash #1 Exc.	4.25	1.43	.45	1.19	7.32	8.41	13
25	Red Wash #3 Exc.	2.80	.69	1.49	.89	5.87	8.81	13
	Sweetwater County							
20	Black Mountain Exc.	2.87	.18	.45	.84	4.34	7.45	13
30	Boars Tusk Exc.	RI						
18	Cedar Mt. Exc.	2.09	.12	2.36	.76	5.33	8.49	13
102	Chandler Simpson Well	2.62	.53	.83	.63	4.61	6.25	6
103	Daley Hay Corral	2.94	1.01	1.03	.66	5.64	7.28	8
2	Farson Exc.	4.05	E0.70	E0.00	E0.15	E4.91	6.53	12
104	J.O. Headquarters	2.85	.60	.82	.79	5.06	7.89	9
105	Len Hay Corral	2.21	.64	1.23	.58	4.66	7.01	9
131	Powder Rim Past.D Exc. #1	3.28	1.60	.92	.68	6.48	7.83	7
136	Powder Rim Past.B Exc. #1E	4.27	1.95	1.15	.77	8.14	9.01	7
137	Powder Rim Past.B Exc. #2	6.85	1.97	1.43	.98	11.23	11.08	7
139	Powder Rim Past.A Exc. #1	3.54	1.06	.74	.67	6.01	9.50	7
19	Radio Tower Exc.	3.27	.69	1.03	.42	5.41	7.31	14
28	Red Wash #2 Exc.	2.54	.73	1.96	.65	5.88	7.63	13
101	Ten Mile Ridge	2.19	.40	1.17	.38	4.14	5.47	7
	Unita County							
31	Cumberland #1 Exc.							
34	Cumberland #4 Exc.							
	Lincoln County							
32	Cumberland #2 Exc.							
33	Cumberland #3 Exc.							
35	Elk Mountain Pit							
	Sublette County							
187	Antelope Exclosure	2.10			2.00			
188	North Mesa	2.45						
189	Sand Draw Pasture	1.30			2.36			
190	North Alkali	1.88						

RI = Record Incomplete
E = Estimated

TABLE II. Precipitation data from selected U. S. Weather Bureau Stations for the period October 15, 1973 to October 15, 1974. 1/

Section Name	Winter Oct. 16 to Apr. 15	Spring Apr. 16 to July 1	Summer July 1 to Sept. 1	Fall Sept. 1 to Oct. 15	1973 Totals 2/	Term Average 3/	Years of Record
Big Horn Basin							
Anchor Dam	3.82	2.93	1.83	1.03	9.61	15.28	12
Basin	.53	1.41	.99	1.07	4.00	6.18	66
Black Mountain	4.44	2.20	1.66	1.36	9.66	11.17	11
Cody 12 SE	3.13	2.60	1.49	.52	7.74	12.55	11
Deaver	.79	1.48	1.21	.51	3.99	5.21	55
Emblem	1.66	1.32	1.09	.17	4.24	7.62	27
Grass Creek	3.40	1.87	1.32	.64	7.23	11.68	21
Greybull 1 S	1.72	1.50	.75	.95	4.92	7.49	22
Heart Mountain	3.03	2.75	1.38	.64	7.80	10.54	25
Lovell	.64	2.32	2.03	.44	5.43	6.92	61
Powell	1.03	1.69	1.34	.71	4.77	5.67	64
Rairden 2 WSW	1.04	1.08	.29	.49	2.90	7.01	22
Shell 4 ENE	1.86	2.07	1.53	1.75	7.21	8.93	20
Ten Sleep 4 NE	4.34	2.53	1.58	1.64	10.09	12.95	12
Ten Sleep 16 SSE	4.62	1.35	2.63	1.20	9.80	—	—
Thermopolis 2	4.69	2.32	.69	1.71	9.41	11.01	9
Thermopolis 25 WNW	2.78	1.92	1.16	.89	6.75	11.48	16
Worland	1.19	1.16	1.42	.47	4.24	7.50	60
Worland FAA AP	1.76	1.36	.73	.30	4.15	5.67	13
Wind River Basin							
Boysen Dam	4.39	1.73	1.10	1.04	8.26	7.88	27
Diversion Dam	.97	1.52	1.05	.40	3.94	9.35	53
Fort Washakie 2 S	2.24	.50	1.14	1.04	4.92	11.90	65
Gas Hill 4 E	4.83	5.31	2.80	.30	13.24	9.74	11
Lander	5.21	1.66	1.13	1.46	9.46	13.53	82
Lost Cabin	.56	1.22	1.07	.67	3.52	6.52	12
Pavillion	1.46	.67	.39	.25	2.77	8.67	49
Riverton	1.51	.75	.62	.56	3.44	8.79	54
Dand Draw	1.94	1.10	1.47	.35	4.86	9.11	26
Shoshoni	.88	1.10	.95	.50	3.43	5.41	33
South West Wyoming							
Farson	1.20	.82	2.12	.00	4.14	6.95	50
Green River	2.44	1.22	.07	.28	4.01	8.70	67
Kemmerer 4 SW	2.55	.43	2.14	.24	5.36	9.32	40
Rock Springs	4.16	1.12	.44	.58	6.30	8.11	33
Rock Springs FAA	3.93	.45	1.64	.03	6.05	10.76	41
Wamsutter 1 N	2.02	1.13	1.29	.33	4.77	6.11	22
Muddy Gap	5.15	3.29	2.32	1.38	12.14	11.85	24
Rawlins FAA AP	4.22	2.15	2.28	1.27	9.92	10.83	34
Sage 4 NNW						9.27	45

1/ Weather Bureau, 1974. Climatological Data-Wyoming Annual Summary of Commerce Vols. 82-83.

2/ Computed for the period October 15, 1973 to October 15, 1974.

3/ Weather Bureau, 1974. Climatological Data-Wyoming Annual Summary. U. S. Dept. of Commerce. Vol. 83, No. 13 and John Alyea, U. S. Weather Bureau, Cheyenne.

SECTION III

EXCLOSURE STUDIES (PRODUCTION, COVER, AND PRECIPITATION PHASE)

1974

Studies of vegetation forage production from several exclosures and relic areas of the Big Horn and Wind River Basins were initiated during the 1962 field season. These studies have been expanded and continued annually since this time to include 40 different exclosures throughout the western half of Wyoming. The objectives of the program are to determine:

(1) the relationship of annual herbage production to area cover percentage;

(2) the relationship of annual herbage production changes to variations in time and amount of available moisture;

(3) the relationship of plant height of major forage species to annual herbage production and to time and amount of available moisture;

(4) influence of several range improvement practices on herbage production and area cover;

(5) the relationship of percentage frequency to area cover and herbage production.

Methods and Procedures

Area cover and herbage production studies on sagebrush-grass sites were conducted on transects of 20 quadrats, 1' x 1', spaced systematically along a randomly located 100' steel tape.

On sites dominated by saltbush, a variation of the sampling technique, described in the 1968 results, was used to measure herbage production. Twenty 1' x 10' plots were located systematically along a randomly located 100' steel tape. Each 1' x 10' plot was subsampled for vegetative cover using 10, 1' x 1' plots.

Area cover of all herbaceous semi-woody and woody species was estimated within each square foot plot. Data of shrub crown cover and basal cover of plains pricklypear, Hood's phlox, and Hooker sandwort were not combined when comparing area cover to herbaceous production since this group of plants was not clipped.

Forage production was determined by clipping herbaceous species at ground or crown level. The clipping procedure was conducted on or near the same date as the previous years for each exclosure. Clippings were oven-dried at 70°C for 24 hours prior to weighing.

On areas where utilization had occurred prior to clipping, utilization estimates by species were made. These estimates were made at the same time and on the same plots where clipping was done. The utilization values were averaged by species for the 20 plots and later used to adjust production for vegetation lost by utilization.

As in 1968, 1971 and 1972, production of shrubby and mat forming species was determined by adding the shrubby and mat forming species production to the clipped production, an index of total production was derived. Shrub and mat forming plant production was obtained by a modified double-sampling technique during early September.

Weight units are estimated on 20 quadrats, 4' x 5', spaced 6 - 12 steps apart across the study area. Weight units of characteristic shape and size are determined before estimates are made. Later 2 to 3 weight units per species are clipped. After drying in the oven at 70°C for 96 hours each unit is weighed. Average unit weights are later used to change the estimated units to grams and then to pounds per acre.

At the same time clipped production data are collected, pictures of the transects are taken giving a pictorial history from year to year at each study location.

Precipitation data are recorded from simple aluminum rain gauges installed at each exclosure. The rain gauge has a diameter of 2.75 inches; so each 100 milliliters of water recorded in the gauge equals one inch of precipitation. Oil is added to each gauge after reading to prevent evaporation. During the winter months antifreeze is added in known amounts to keep the gauges from freezing and breaking. Precipitation data are collected four times a year -- April 15, July 1, September 1, and October 15.

Names of plants which occurred in the production study areas are shown in Table I. Included are the four letter code, genus, species, common names, life form and characteristic longevity of the plants.

Results 1974

The information presented in this 1974 annual report is in the same format as past Arid Land Ecology Annual Reports. Basal cover, frequency, production and precipitation data are presented on summary sheets, one summary for each study area treatment. Table II gives an alphabetical listing of study areas, the county where each is located, the treatments studied at each area, and also serves as a table of contents for reference to specific pages concerning each study area.

Production on each summary sheet is broken down into clipped production (herbaceous species), shrub production, total production for locations where utilization of vegetation had occurred prior to clipping. Table III gives the exclosures and utilization percentages for sites where utilization had occurred. Study areas not mentioned showed no significant amount of utilization.

Table IV gives a comparison of 1974 precipitation and production with average precipitation and production for the years 1962-1972 at 21 exclosures.

Precipitation totals for 1974 averaged much lower than 1973. In the Sweetwater area the decrease from the 1973 total was as much as eight inches, (less than half). The average decrease was usually about three inches.

Even though total precipitation was much less than 1973, forage production was similar for most areas dominated by cool season species. The above average forage production for the cool season species could have been the result of spring (April-June) moisture. It was noted also that the cool season grasses cured early in the summer because of hot temperatures and moisture stress.

Areas dominated by blue grama grass had much lower forage production than 1973, and even lower than the long term average. The western half of Wyoming received very little moisture during the summer from July 1 to September 1. Blue grama being a warm season grass needs the summer moisture for adequate growth.

The precipitation records show that spring precipitation was normal and summer precipitation was below normal.

TABLE I. LIST OF PLANT NAMES WHICH OCCURRED IN PRODUCTION STUDY AREAS.

Code	Genus--Species	Common Name	Life Form	Longevity
AGCR	Agropyron cristatum	Crested wheatgrass	Grass	Perennial
AGGL	Agoseris glauca	Pale agoseris	Forb	Perennial
AGGR	Agropyron griffithsii	Griffith's wheatgrass	Grass	Perennial
AGSM	Agropyron smithii	Western wheatgrass	Grass	Perennial
AGSP	Agropyron spicatum	Bluebunch wheatgrass	Grass	Perennial
ALDE	Alyssum desertorum	Desert Alyssum	Forb	Annual
ALTE	Allium textile	Textile onion	Forb	Perennial
ARAR	Artemisia arbuscula	Low sagebrush	Shrub	Perennial
ARFR	Artemisia frigida	Fringed sagewort	Half-shrub	Perennial
ARHO	Arenaria hookeri	Hooker sandwort	Forb	Perennial
ARHO^2	Arabis holboellii	Holboel rockcress	Forb	Perennial
ARNO	Artemisia nova	Black sagebrush	Shrub	Perennial
ARPE	Artemisia pedatifida	Birdfoot sagewort	Shrub	Perennial
ARSP	Artemisia spinescens	Bud sagewort	Half-shrub	Perennial
ARTR	Artemisia tridentata	Big sagebrush	Shrub	Perennial
ASDI	Astragalus diversifolius	Meadow milkvetch	Forb	Perennial
ASMI	Astragalus missouriensis	Missouri milkvetch	Forb	Perennial
ASPU	Astragalus purshii	Pursh milkvetch	Forb	Perennial
ASSP	Astragalus spatulatus	Spoonleaf milkvetch	Forb	Perennial
AST	Astragalus spp.	Milkvetch	Forb	Perennial
ATCO	Atriplex confertifolia	Shadscale saltbush	Shrub	Perennial
ATNU	Atriplex nuttallii	Nuttall saltbush	Half-shrub	Perennial
BOGR	Bouteloua gracilis	Blue grama	Grass	Perennial
BRCO	Bromus commutatus	Hairy chess	Grass	Annual
BRJA	Bromus japonicus	Japenese chess	Grass	Annual
BRTE	Bromus tectorum	Cheatgrass	Grass	Annual
CAEL	Carex eleocharis	Needleleaf sedge	Sedge	Perennial
CAFI	Carex filifolia	Threadleaf sedge	Sedge	Perennial
CAMI	Camelina microcarpa	Littlepod falseflax	Forb	Annual
CANU	Calochortus nuttallii	Mariposa lily	Forb	Perennial
CAS	Castilleja spp.	Paintbrush	Forb	Perennial
CHEN	Chenopodium sp.	Goose foot	Forb	Annual
CHNA	Chrysothamnus nauseosus	Rubber rabbitbush	Shrub	Perennial
CHVI	Chrysothamnus viscidiflorus	Green rabbitbush	Shrub	Perennial
COPA	Commandra pallida	False toadflax	Forb	Perennial
CORA	Cordylanthus ramosus	Branched birdbeak	Forb	Annual
CRBR	Cryptantha bradburiana	Miners candle	Forb	Perennial
CRFL	Cryptantha flavoculata	Cryptantha	Forb	Perennial
CRY	Cryptantha spp.	Cryptantha	Forb	
CRE	Crepis spp.	Hawksbeard	Forb	
DEPI	Descurainia pinnata	Pinnate tansymustard	Forb	Annual
ERCO	Erigeron compositus	Fernleaf fleabane	Forb	Perennial
ERMI	Eriogonum microthecum	Slenderbush buckwheat	Forb	Perennial
EROV	Eriogonum ovalifolium	Cushion eriogonum	Forb	Perennial
ERPU	Erigeron pumilus	Fleabane	Forb	Perennial
ERUM	Erigonum umbellatum	Sulfur wild buckwheat	Forb	Perennial
EULA	Eurotia lanata	Winterfat	Half-shrub	Perennial
FEID	Festuca idahoensis	Idaho fescue	Grass	Perennial

TABLE I. Continued

Code	Genus--Species	Common Name	Life Form	Longevity
GARA	Gayophytum ramosissimum	Branchy ground smoke	Forb	Annual
GIL	Gilia spp.	Gilia	Forb	Annual
GIPU	Gilia pumila	Gilia	Forb	Annual
GISP	Gilia spicata	Spike gilia	Forb	Perennial
GUSA	Gutierrezia sarothrae	Broom snakeweed	Half-shrub	Perennial
HAAC	Haplopappus acaulis	Stemless goldenweed	Forb	Perennial
HAGL	Halogeton glomeratus	Halogeton	Forb	Annual
HOJU	Hordeum jubatum	Foxtail barley	Grass	Perennial
JUOS	Juniperus osteosperma	Utah juniper	Tree	Perennial
KOCR	Koeleria cristata	June grass	Grass	Perennial
LAC	Lactuca spp.	Lettuce	Forb	Annual
LARE	Lappula redowskii	Stickweed	Forb	Annual
LEAL	Lesquerrella alpina	Bladderpod	Forb	Perennial
LEDE	Lepidium densiflorum	Prairie pepperweed	Forb	Annual
LEPE	Lepidium perfoliatum	Clasping pepperweed	Forb	Annual
LEPU	Leptodactylon pungens	Granite gilia	Forb	Perennial
LILE	Linum lewisii	Blue flax	Forb	Perennial
MACA	Machaeranthera canescens	Hoary aster	Forb	Perennial
MAGL	Machaeranthera glabriuscula	Woody aster	Half-Shrub	Perennial
MATA	Machaeranthera tanacetifolia	Tansyleaf aster	Forb	Annual
MIGR	Microsteris gracilis	Pink microsteris	Forb	Annual
MONU	Monolepis nuttalliana	Nuttal monolepis	Forb	Annual
MUDI	Musineon divaricatum	False carrot	Forb	Perennial
OECA	Oenothera caespitosa	Tufted evening primrose	Forb	Perennial
OESC	Oenothera scapoidea	Evening primrose	Forb	Annual
OPPO	Opuntia polyacantha	Plains pricklypear	Forb	Perennial
ORHY	Oryzopsis hymenoides	Indian ricegrass	Grass	Perennial
PELA	Penstemon laricifolius	Larchleaf penstemon	Forb	Perennial
PHHO	Phlox hoodii	Hood's phlox	Forb	Perennial
PHLI	Phacelia linearis	Threadleaf phacelia	Forb	Annual
PHLO	Phlox longifolia	Long-leaf phlox	Forb	Perennial
PHMU	Phlox multiflora	Flowery phlox	Forb	Perennial
PLPA	Plantago patagonica	Wooly indianwheat	Forb	Annual
PLSP	Plantago spinescens	Spiny indianwheat	Forb	Annual
POAV	Polygonum aviculare	Prostrate knotweed	Forb	Annual
POFE	Poa fendleriana	Muttongrass	Grass	Perennial
POSE	Poa secunda	Sandberg bluegrass	Grass	Perennial
PSTE	Psoralea tenuiflora	Slimflower scurfpea	Forb	Annual
SAKA	Salsola kali	Russian thistle	Forb	Annual
SAVE	Sarcobatus vermiculatus	Greasewood	Shrub	Perennial
SECA	Senecio canus	Wooly groundsel	Forb	Perennial
SEST	Sedum stenopetalum	Yellow stonecrop	Forb	Perennial
SIAL	Sisymbrium altissimum	Tumblemustard	Forb	Annual
SIHY	Sitanion hystrix	Squirreltail bottlebrush	Grass	Perennial
SPCO	Sphaeralcea coccinea	Scarlet globemallow	Forb	Perennial
SPAI	Sporobolus airoides	Alkali sacaton	Grass	Perennial
SPCR	Sporobolus cryptandrus	Sand dropseed	Grass	Perennial
STCO	Stipa comata	Needle-and-thread	Grass	Perennial
SYOC	Symphoricarpos occidentalis	Western snowberry	Shrub	Perennial
TAOF	Taraxacum officinale	Common dandylion	Forb	Perennial

TABLE I. Continued

Code	Genus--Species	Common Name	Life Form	Longevity
TECA	Tetradymia canescens	Gray horsebrush	Shrub	Perennial
TESP	Tetradymia spinosa	Spiny horsebrush	Shrub	Perennial
TRDU	Tragapogon dubius	Yellow salsify	Forb	Perennial
TRI	Trifolium spp.	Clover	Forb	
VIAM	Vicia americana	American vetch	Forb	Perennial
VIO	Violaceae	Violet family	Forb	Perennial
VINU	Viola nuttallii	Nuttall violet	Forb	Perennial
VUOC	Vulpia octaflora	Six weeks fescue	Grass	Annual

TABLE II. An alphabetical listing of study areas, the county where each occurs, the treatments studied at each area, and table of contents.

County Name Code	Exclosure Name	County	Treatment	Page
2017	Big Trails G.R.I. Exc.	Washakie	Inside Spray Outside Native	
1002	Boysen Reservoir Exc.	Fremont	Inside Native Outside Native	
2007	Bud Kimball Exc.	Washakie	Inside Native Outside Native Inside Spray Outside Spray	
2002	Buffalo Creek Exc.	Washakie	Inside Native Outside Native	
2003	Burnt Wagon Exc.	Washakie	Inside Native Outside Native	
1501	Cochran Exc.	Hot Springs	Inside Native Inside Pitted Outside Native Outside Spray	
1901	Cumberland Exc. #1	Uinta	Inside Native Outside Native Inside Spray Outside Spray	
1201	Cumberland Exc. #2	Lincoln	Inside Native Outside Native Inside Spray Outside Spray	
1202	Cumberland Exc. #3	Lincoln	Inside Native Outside Native Inside Spray Outside Spray	
1902	Cumberland Exc. #4	Uinta	Inside Native Outside Native	
2004	Demer Exc.	Washakie	Inside Native Outside Native	
2005	Dutch Nick Exc.	Washakie	Inside Native Outside Native	
0404	Farson Exc.	Sweetwater	Inside Native Outside Native	
1007	Granite Mountain Exc.	Fremont	Inside Native Outside Native Inside Spray Outside Spray	
0901	Halogeton Pasture Exc. #1	Big Horn	Inside Native	
0905	Halogeton Pasture Exc. #2	Big Horn	Inside Native	
0903	Halogeton Pasture Exc. #3	Big Horn	Inside Native	

TABLE II. Continued

County Name Code	Exclosure Name	County	Treatment	Page
0913	Horse Creek Exc.	Big Horn	Inside Agsp Outside Agsp Inside Agsm Outside Agsm	
0914	Kane Deer Exc.	Big Horn	Inside Native Outside Native Inside Spray Outside Spray	
0921	Kane G.R.I. Exc.	Big Horn	Inside Native Outside Spray	
1502	Kirby Creek Exc.	Hot Springs	Inside Native Outside Native	
1001	Lander Ant Exc.	Fremont	Inside Native Outside Native	
1003	Lower Gov't Draw Exc.	Fremont	Inside Native Outside Native Inside Spray Outside Spray	
1004	McGraw Flat Exc.	Fremont	Inside Native Outside Native	
0920	Medicin Lodge B.R.I. Exc.	Big Horn	Inside Spray Outside Native	
2301	Mesa Antelope	Sublette	Inside Native Outside Native	
1503	North Butte Relic Area	Hot Springs	Native	
1504	Round Top Relic Area	Hot Springs	Native	
1505	Sand Gulch Exc.	Hot Springs	Inside Native Outside Native	
1009	Shoshone Ant Exc. #2 North South	Fremont	Inside Native Inside Native Outside Native	
1011	Shoshone Ant Exc. #4 North South	Fremont	Inside Native Inside Native Outside Native	
1013	Shoshone Ant Exc. #7 North South	Fremont	Inside Native Inside Native Outside Native	
1014	Shoshone Ant Exc. #8 North South	Fremont	Inside Native Inside Native Outside Native	
1015	Shoshone Ant Exc. #9 North South	Fremont	Inside Native Inside Native Outside Native	

TABLE II. Continued

County Name Code	Exclosure Name	County	Treatment	Page
1017	Shoshone Ant Exc. #11 North	Fremont	Inside Native	
	South		Inside Native	
			Outside Native	
2009	Smilo Exc.	Washakie	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
1005	Sweetwater Exc.	Fremont	Inside Arno	
			Outside Arno	
			Inside Artr	
			Outside Artr	
2010	Two Mile Hill Exc.	Washakie	Inside Native	
			Outside Native	
1006	Upper Gov't Draw Exc.	Fremont	Inside Native	
			Outside Native	
			Inside Spray	
			Outside Spray	
2006	West Pasture Exc.	Washakie	Inside Native	
			Outside Native	

TABLE III. Adjustments in production for utilization occurring prior to clipping.

Exclosure	Treatment	Species	% Utilization	Adjusted Production (#/A.)
Boysen	Out Native	BOGR	10	24.23
Bud Kimball	Out Native	AGSM	40	37.49
Buffalo Creek	Out Native	AGSM	5	4.45
		AGSP	5	1.22
				5.67
Cochran	Out Native	AGSM	5	6.43
	Out Spray	AGSM	5	4.39
		AGSP	5	.36
				4.75
Cumberland #1	Out Native	AGSM	40	27.45
		ORHY	40	4.17
				31.62
	Out Spray	AGSM	40	43.52
		ORHY	40	.19
		PHMU	75	8.35
		POSE	25	2.09
				54.15
Cumberland #2	Out Native	AGSM	45	33.79
		PHLO	50	2.71
		POFE	30	5.43
		POSE	20	6.22
				48.15
	Out Spray	AGSM	45	27.59
		LILE	10	1.72
		ORHY	40	0.45
		PHLO	50	4.54
		POFE	30	4.71
		POSE	25	5.91
				44.92
Cumberland #3	Out Native	AGSM	20	12.37
		POFE	30	10.09

TABLE III. Continued

Exclosure	Treatment	Species	% Utilization	Adjusted Production (#/A.)
Cumberland #4	Out Native	SIHY	35	8.92
Horse Creek	Out AGSM	AGSM	35	56.92
	Out AGSP	AGSM	35	26.45
		AGSP	35	21.48
				47.93
Kane Deer	Out Native	AGGR	15	2.71
	Out Spray	AGCR	20	0.07
		POSE	20	2.29
				2.36
Kane GRI	In Spray	AGSP	15	25.74
Kirby Creek	Out Native	AGSM	15	16.73
Lander Ant	Out Native	AGSM	5	6.06
		STCO	10	1.71
				7.77
Lower Gov't Draw	Out Native	AGSM	50	32.09
		STCO	15	3.99
				36.08
	Out Spray	AGSM	80	54.93
		STCO	10	1.12
				56.05
McGraw Flat	Out Native	AGSM	20	23.59
		POFE	30	15.70
				39.29
Medicine Lodge	Out Native	AGSP	20	2.03
Mesa Antelope	Out Native	AGSM	30	19.25
Shoshoni Ant #2	Out Native	AGSM	25	19.23
Shosohni Ant #4	SE SW In Native	AGSM	5	3.80
		SPCO	30	.09
		SPCR	25	.35
				4.24
	NW NE	STCO	15	7.02

TABLE III. Continued

Exclosure	Treatment	Species	% Utilization	Adjusted Production (#/A.)
Shoshoni Ant #4	Out Native	STCO	40	28.08
Shoshoni Ant #7	Out Native	AGSM	40	30.00
		STCO	20	1.64
				31.64
Shoshoni Ant #8	Out Native	STCO	30	2.66
Shoshoni Ant #9	NW NE In Native	AGSM	5	2.91
Shoshoni Ant #9	Out Native	AGSM	10	4.42
		STCO	20	0.87
				5.29
Shoshoni Ant #11	Out Native	AGSM	5	3.91
Smilo	Out Native	AGSM	10	.62
		SIHY	5	.75
		STCO	10	.77
				2.14
Smilo	Out Spray	AGSM	10	5.21
		STCO	10	.58
				5.79
Upper Gov't Draw	Out Native	AGSM	20	86.65
	Out Spray	AGSM	85	95.71
		KOCR	15	14.15
		POSE	15	5.85
		STCO	85	23.67
				139.38

```
16 55   FEB 18  RUNW3AA...
          2017   BIG    TRAILS G.R.I. AUGUST 9/74   INSIDE SPRAY

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.    TOTAL  AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT    WGT.   WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.   GMS/20 /PLOT   BASAL  AC.
               AREA   BASAL           BASE    SQ.FT. OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT


  6    *JUCS    30.00 1.50                2
   PER GRASS     0.20  0.01               1      0.55    0.55   2.75    2.64
  3    AGSP      0.20 T          .697     1      0.55    0.55   2.75  2.6409
   ANN GRASS    24.40  1.22              19     50.07    2.64   2.05 240.42
  5    BRTE     23.80 1.19       82.9    19
  5    FEOC      0.60 3.00E-02 2.09       3
   ANN FORBS     4.10  0.20               5      0.79    0.16   0.19    3.79
  4    LAC       3.00 .150       10.5     1
  4    LARE      0.10 T          .348     1
  4    UNK#1     1.00 5.00E-02 3.48       5
     TOTAL            2.93     100.00           51.410                246.86

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub data collected

```
PRECIPITATION DATA
 RAIN GUAGE NO.        BIG    TRAILS G.R.I. AUGUST 9/74
OCT. 15 TO APR. 15 = 4.70
APR. 15 TO JULY 1  = 2.65
JULY 1 TO SEPT. 1  = 2.53
SEPT. 1 TO OCT. 15 = 1.40
SEASON TOTAL       =11.28
LONG TERM AVERAGE  =13.11
```

** no utilization

```
21 02   FEB 18  RUN36AA...
          2017   BIG    TRAILS G.R.I. AUGUST 9/74   OUT    NATIVE

                                   NUMBER PLOTS = 20
                                     PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                 BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                 PER-    AREA             20              RENCES
                 CENT

  6   *JUDS    180.00 9.00                 3
   PER GRASS     0.30  0.01                1        0.29    0.29   0.97    1.39
  3    POSE      0.30 1.50E-02 1.45        1        0.29    0.29   0.97   1.3925
   ANN GRASS    20.30  1.01               20       14.26    0.71   0.70   68.47
  5    BRTE     20.30 1.01       98.1     20
   ANN FORBS     0.10  0.00                1        0.02    0.02   0.20    0.10
  4    LARE      0.10 T         .483       1
     TOTAL             10.03   100.00              14.570                 69.761

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub data collected

```
PRECIPITATION DATA
 RAIN GUAGE NO.          BIG     TRAILS G.R.I. AUGUST 9/74
OCT. 15 TO APR. 15 =  4.70
APR. 15 TO JULY 1  =  2.65
JULY 1 TO SEPT. 1  =  2.53
SEPT. 1 TO OCT. 15 =  1.40
SEASON TOTAL       = 11.28
LONG TERM AVERAGE  = 13.11
```

** no utilization

```
12 27    NOV 05  RUNQHAA...
           1002    BOYSEN EXCL            JULY    25/74  INSIDE NATIVE

                                  NUMBER PLOTS = 20
                                    PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.     WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.     UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-   AREA
                PER-    AREA              20              RENCES
                CENT

  6    *OPPO     15.00 .750                  3
   PER GRASS    129.00  6.45                14      33.81     2.41   0.26 162.35
  3    BOGR     127.00 6.35       95.1      14      28.35     2.02   0.22  136.13
  3    SPCR       2.00 .100       1.50       1       5.46     5.46   2.73  26.217
   PER FORBS      1.90  0.09                 6       4.22     0.70   2.22  20.26
  2    SPCO       1.90 9.50E-02 1.42         6
   ANN FORBS      2.70  0.13                 1       1.78     1.78   0.66   8.55
  4    LARE       2.50 .125       1.87       1
  4    MATA       0.20 T          .150       1
     TOTAL             7.43     100.00             39.810                  191.16

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

  MAGI                                                                      .87
  OPPO                                                                     4.51
                                                             Shrub Prod.   5.38
                                                                  Total

PRECIPITATION DATA
 RAIN GUAGE NO.          BOYSEN EXCL            JULY    25/74
OCT. 15 TO APR. 15 =   .70
APR. 15 TO JULY 1  =   .90
JULY 1 TO SEPT. 1  =  1.40
SEPT. 1 TO OCT. 15 =   .10
SEASON TOTAL       =  3.10
LONG TERM AVERAGE  =  4.84
```

```
          1002    BOYSEN EXCL            JULY    25/74   OUT     NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT    TOTAL    AVE.    PERCENT  ABS.     TOTAL    AVE.     WGT./    LBS
CODE    NAME     TRANS    PER-    COMPO-   PLOT     WGT.     WGT.     UNIT     PER
                 BASAL    CENT    SITION   FREQ.    GMS/20   /PLOT    BASAL    AC.
                 AREA     BASAL            BASE     SQ.FT.   OCCUR-   AREA
                 PER-     AREA             20                RENCES
                 CENT

   PER GRASS     128.20   6.41                19       50.45    2.66    0.39  242.25
  3    BOGR      128.20  6.41        99.2     19       50.45    2.66    0.39   242.25
   PER FORBS       1.00   0.05                 4        2.23    0.56    2.23   10.71
  2    SPCO        1.00 5.00E-02 .774          4
      TOTAL              6.46     100.00               52.680                  252.95

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

     ATCO                                                                       6.64
     OPPO                                                                       8.69
                                                               Shrub Prod.     15.33

                                                                     Total    268.28
PRECIPITATION DATA
 RAIN GUAGE NO.          BOYSEN EXCL            JULY    25/74
OCT. 15 TO APR. 15 =   .70
APR. 15 TO JULY 1  =   .90
JULY 1 TO SEPT. 1  =  1.40
SEPT. 1 TO OCT. 15 =   .10
SEASON TOTAL       =  3.10
LONG TERM AVERAGE  =  4.84
                                                           utilization         24.23
** Production adjust for utilization
                                                     Production Adjusted      292.51
```

```
16 36    JAN 27  RUN4MAA...
            2007    BUD     KIMBAL EXCL    JULY    I8/74   INSIDE NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT   ABS.    TOTAL    AVE.     WGT./   LBS
CODE    NAME     TRANS   PER-     COMPO-    PLOT    WGT.     WGT.     UNIT    PER
                 BASAL   CENT     SITION    FREQ.   GMS/20   /PLOT    BASAL   AC.
                 AREA    BASAL              BASE    SQ.FT.   OCCUR-   AREA
                 PER-    AREA               20               RENCES
                 CENT

  6     *ARTR    128.00  6.40                  6
  6     *OPPO     39.00  1.95                  4
  6     *PHHO     44.00  2.20                  5
   PER GRASS      13.30   0.66                17     28.07     1.65    2.11  134.78
  3      AGSM     10.50  .525       59.0      17     24.93     1.47    2.37   119.71
  3      POSE      1.80  9.00E-02   10.1       6      1.06     0.18    0.59   5.0898
  3      STCO      1.00  5.00E-02   5.62       1      2.08     2.08    2.08   9.9875
   PER FORBS       4.50   0.22                 6      4.52     0.75    1.00    21.70
  2      MACA      4.50  .225       25.3       6
     TOTAL               11.44     100.00            32.590                   156.49

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	166.56
OPPO	17.24
PHHO	4.50
Shrub Prod.	188.300
Total	344.790

```
PRECIPITATION DATA
 RAIN GUAGE NO.          BUD     KIMBAL EXCL    JULY    I8/74
OCT. 15 TO APR. 15  =  3.80
APR. 15 TO JULY 1   =  1.03
JULY 1 TO SEPT. 1   =  1.23
SEPT. 1 TO OCT. 15  =  2.42
SEASON TOTAL        =  8.48
LONG TERM AVERAGE   =  9.33
```

** no utilization

2007 BUD KIMBAL EXCL JULY 18/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	140.00	7.00		6				
6	*OPPO	73.00	3.65		4				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	17.60	0.88		19	23.34	1.23	1.33	112.07
3	AGSM	10.90	.545	51.2	19	19.52	1.03	1.79	93.729
3	POSE	6.70	.335	31.5	15	3.82	0.25	0.57	18.342
	PER FORBS	1.40	0.07		7	2.25	0.32	1.61	10.80
2	MACA	1.40	7.00E-02	6.57	7				
	ANN GRASS	0.30	0.01		2	0.09	0.04	0.30	0.43
5	FEOC	0.30	1.50E-02	1.41	2				
	ANN FORBS	2.00	0.10		7	1.55	0.22	0.77	7.44
4	LARE	0.30	1.50E-02	1.41	2				
4	PLSP	1.70	8.50E-02	7.98	7				
	TOTAL		11.76	100.00		27.230			130.75

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	90.58
OPPO	42.05
PHHO	.29
Shrub Prod.	132.92
Total	263.67

PRECIPITATION DATA
RAIN GUAGE NO. BUD KIMBAL EXCL JULY 18/74
OCT. 15 TO APR. 15 = 3.80
APR. 15 TO JULY 1 = 1.03
JULY 1 TO SEPT. 1 = 1.23
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL = 8.48
LONG TERM AVERAGE = 9.33

** Production adjusted for utilization

utilization	37.49
Production Adjusted	301.16

2007 BUD KIMBAL EXCL JULY 18/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*OPPO	33.00	1.65		2				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	27.90	1.39		20	72.62	3.63	2.60	348.70
3	AGSM	16.30	.815	39.6	20	64.82	3.24	3.98	311.25
3	POSE	9.60	.480	23.3	13	5.58	0.43	0.58	26.793
3	STCO	2.00	.100	4.85	1	2.22	2.22	1.11	10.660
	PER FORBS	2.10	0.10		4	3.25	0.81	1.55	15.61
2	MACA	2.10	.105	5.10	4				
	ANN GRASS	10.30	0.51		17	22.03	1.30	2.14	105.78
5	BRTE	9.20	.460	22.3	17				
5	FEOC	1.10	5.50E-02	2.67	9				
	ANN FORBS	0.90	0.04		3	0.45	0.15	0.50	2.16
4	LARE	0.60	3.00E-02	1.46	3				
4	PLSP	0.30	1.50E-02	.728	3				
	TOTAL		3.76	100.00		98.350			472.25

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

OPPO		8.69
PHHO		.53
	Shrub Prod.	9.22
	Total	481.47

PRECIPITATION DATA
RAIN GUAGE NO. BUD KIMBAL EXCL JULY 18/74
OCT. 15 TO APR. 15 = 3.80
APR. 15 TO JULY 1 = 1.03
JULY 1 TO SEPT. 1 = 1.73
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL = 8.48
LONG TERM AVERAGE = 9.33

** No utilization

2007 BUD KIMBAL EXCL JULY 18/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	50.00	2.50		1				
6	*OPPO	40.00	2.00		1				
	PER GRASS	21.80	1.09		18	34.02	1.89	1.56	163.35
3	AGSM	12.20	.610	33.7	18	26.43	1.47	2.17	126.91
3	POSE	9.60	.480	26.5	18	7.59	0.42	0.79	36.445
	PER FORBS	0.20	0.01		1	0.62	0.62	3.10	2.98
2	MACA	0.20	T	.552	1				
	ANN GRASS	7.10	0.35		17	11.43	0.67	1.61	54.88
5	FEOC	7.10	.355	19.6	17				
	ANN FORBS	7.10	0.35		17	7.63	0.45	1.07	36.64
4	PLSP	7.10	.355	19.6	17				
	TOTAL		6.31	100.00		53.700			257.85

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	6.48
OPPO	9.69
PIHO	88.32
Shrub Prod.	104.49
Total	362.340

PRECIPITATION DATA
RAIN GUAGE NO. BUD KIMBAL EXCL JULY 18/74

OCT. 15 TO APR. 15 = 3.80
APR. 15 TO JULY 1 = 1.03
JULY 1 TO SEPT. 1 = 1.73
SEPT. 1 TO OCT. 15 = 2.42
SEASON TOTAL = 8.48
LONG TERM AVERAGE = 9.33

** No utilization

```
          2002   BUFFAL CREEK  EXCL    JULY   18/74  INSIDE NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                 BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                 PER-    AREA              20              RENCES
                 CENT

  6    *ARTR     99.00 4.95                  6
  6    *OPPO     12.00 .600                  1
  6    *PHHO      8.00 .400                  3
   PER GRASS     52.90  2.64                17      48.75    2.87   0.92 234.08
  3    AGSM       2.00 .100       3.41       3       3.69    1.23   1.84  17.718
  3    AGSP      43.60 2.18       74.3      17      39.63    2.33   0.91  190.29
  3    BOGR       1.10 5.50E-02 1.87         5       0.97    0.19   0.88  4.6576
  3    POSE       6.20 .310       10.6      15       4.46    0.30   0.72  21.416
   PER FORBS      1.10  0.05                 3       0.85    0.28   0.77    4.08
  2    ERPU       0.50 2.50E-02 .352         2
  2    SPCO       0.40 2.00E-02 .681         3
  2    VIO        0.20 1.00E-02 .341         2
   ANN GRASS      3.80  0.19                 5       5.48    1.10   1.44   26.31
  5    BRTE       3.80 .190       5.47       5
   ANN FORBS      0.90  0.04                 8       0.43    0.05   0.48    2.06
  4    PLSP       0.90 4.50E-02 1.53         8
     TOTAL             8.88    100.00               55.510                 266.54

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		241.82
OPPO		.38
PHHO		537.44
	Shrub Prod.	779.64
	Total	1046.18

```
PRECIPITATION DATA
 RAIN GUAGE NO.         BUFFAL CREEK  EXCL    JULY    18/74
OCT. 15 TO APR. 15 =  4.02
APR. 15 TO JULY 1  =  1.01
JULY 1 TO SEPT. 1  =  1.67
SEPT. 1 TO OCT. 15 =  2.79
SEASON TOTAL       =  9.49
LONG TERM AVERAGE  = 10.41
```

** No utilization

2002 BUFFAL CREEK EXCL JULY 18/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	103.00	5.15		6				
6	*OPPO	40.00	2.00		2				
	PER GRASS	41.80	2.09		20	32.72	1.64	0.78	157.11
3	AGSM	12.50	.625	24.9	18	18.52	1.03	1.48	88.927
3	AGSP	5.00	.250	9.94	2	5.07	2.53	1.01	24.345
3	POSE	24.30	1.21	48.3	20	9.13	0.46	0.38	43.839
	PER FORBS	0.20	0.01		1	0.07	0.07	0.35	0.34
2	SPCO	0.20	T	.398	1				
	ANN GRASS	4.10	0.20		18	8.95	0.50	2.18	42.98
5	BRTE	4.10	.205	8.15	18				
	ANN FORBS	4.20	0.21		18	9.47	0.53	2.25	45.47
4	PLSP	4.20	.210	8.35	18				
	TOTAL		9.66	100.00		51.210			245.89

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	181.79
OPPO	18.14
PHHO	3.95
EULA	.20
Shrub Prod.	204.08
Total	449.97

PRECIPITATION DATA
RAIN GUAGE NO. BUFFAL CREEK EXCL JULY 18/74
OCT. 15 TO APR. 15 = 4.02
APR. 15 TO JULY 1 = 1.01
JULY 1 TO SEPT. 1 = 1.67
SEPT. 1 TO OCT. 15 = 2.79
SEASON TOTAL = 9.49
LONG TERM AVERAGE = 10.41

Utilization 5.67
Production Adjusted 455.64

**Production adjusted for utilization

```
11 09   FEB 13  RUNPNBA...
          2003   BURNT  WAGON  EXCL   JULY   8/74   INSIDE NATIVE

                       NUMBER OF PLOTS
                 COVER = 200, PRODUCTION = 20
                  PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT  TOTAL  AVE.  PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS
CODE   NAME   TRANS  PER-  COMPO-   PLOT   WGT.   WGT.   UNIT   PER
              BASAL  CENT  SITION   FREQ.  GMS/   /PLOT  BASAL  AC.
              AREA   BASAL          BASE   200    OCCUR- AREA
              PER-   AREA           200    SQ.FT. RENCES
              CENT

  1  ATNU   1130.8  5.65    97.7     88   339.98  3.86  0.30  163.25
   PER GRASS   3.5  1.75E-02         11     2.21  0.20  0.63  1.0612
  3  SIHY      3.5  1.75E-02 .302    11     2.21  0.20  0.63  1.0612
   PER FORBS  23.20  0.12            83    17.58  0.21  0.76   8.44
  2  ALTE      5.0  2.50E-02 .432    43
  2  MUDI     18.2  9.10E-02 1.57    83
   ANN FORBS   0.20  0.00             2     0.24  0.12  1.20   0.12
  4  MATA      0.2  T       1.73E-02  2
     TOTAL          5.8    100.00        360.010              172.866

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub production observed

```
PRECIPITATION DATA
 RAIN GUAGE NO.        BURNT  WAGON  EXCL   JULY   8/74
OCT. 15 TO APR. 15 =    .95
APR. 15 TO JULY 1  =   1.35
JULY 1 TO SEPT. 1  =    .56
SEPT. 1 TO OCT. 15 =    .35
SEASON TOTAL       =   3.21
LONG TERM AVERAGE  =   5.96
```

** no utilization

```
          2003   BURNT  WAGON  EXCL   JULY   8/74   OUT    NATIVE

                          NUMBER OF PLOTS
                    COVER = 200, PRODUCTION = 20
                     PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/   /PLOT  BASAL  AC.
               AREA   BASAL           BASE   200    OCCUR- AREA
               PER-   AREA            200    SQ.FT. RENCES
               CENT

 1  ATNU     754.5  3.77       90.3      79   278.05    3.52  0.37  133.51
  PER GRASS    9.7  4.85E-02             21     4.75    0.23  0.49  2.2808
 3  POSE       3.6  1.80E-02 .431        13     0.16    0.01  0.04  7.6827E-02
 3  SIHY       6.1  3.05E-02 .730        19     4.59    0.24  0.75  2.2040
  PER FORBS  63.70  0.32                 63     7.66    0.12  0.12   3.68
 2  ALTE       3.2  1.60E-02 .383        30
 2  MACA       0.4  T          4.79E-02   2
 2  MUDI      60.1  .300       7.19      63
  ANN FORBS   7.50  0.04                 16     6.73    0.42  0.90   3.23
 4  DEPI       0.2  T          2.39E-02   2
 4  MATA       6.7  3.35E-02 .802        16
 4  UNK        0.6  T          7.18E-02   6
    TOTAL           4.2      100.00          297.190              142.702

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub production observed

```
PRECIPITATION DATA
 RAIN GUAGE NO.        BURNT  WAGON  EXCL   JULY   8/74
OCT. 15 TO APR. 15 =    .95
APR. 15 TO JULY 1  =   1.35
JULY 1 TO SEPT. 1  =    .56
SEPT. 1 TO OCT. 15 =    .35
SEASON TOTAL       =   3.21
LONG TERM AVERAGE  =   5.96
```

** No utilization

```
19 57   JAN 16  RUNENBA...
            1501   COCHRA EXCL            JULU    24/74  INSIDE NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA              20              RENCES
                CENT

  6    *ARTR    185.00 9.25                 10
  6    *OPPO     18.00 .900                  2
  6    *PHHO      3.00 .150                  2
   PER GRASS     15.80  0.79                17      18.99    1.12   1.20   91.18
  3     AGSM      7.50 .375       38.9      17      13.45    0.79   1.79   64.583
  3     BOGR      2.00 .100       10.4       1       0.75    0.75   0.37   3.6013
  3     POSE      6.30 .315       32.6      17       4.79    0.28   0.76   23.000
   ANN GRASS      3.50  0.17                11       3.57    0.32   1.02   17.14
  5     BRTE      3.20 .160       16.6      11
  5     FEOC      0.30 1.50E-02 1.55         3
    TOTAL              11.26   100.00               22.560                 108.33

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

  ARTR                                                                  272.71
  OPPO                                                                    8.32
  PHHO                                                                    3.69
                                                   Shrub Prod.          284.72
                                                                        393.05


PRECIPITATION DATA
 RAIN GUAGE NO.        COCHRA EXCL           JULU    24/74
OCT. 15 TO APR. 15 =   3.62
APR. 15 TO JULY 1  =    .91
JULY 1 TO SEPT. 1  =   1.67
SEPT. 1 TO OCT. 15 =   2.35
SEASON TOTAL       =   8.55
LONG TERM AVERAGE  =  10.03
```

** No utilization

```
10 52    JAN 17   RUNLSBA...
             1501    COCHRA EXCL            JULY    24/74  OUT     NATIVE

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.    WGT.    UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL             BASE     SQ.FT.  OCCUR-  AREA
                 PER-    AREA              20               RENCES
                 CENT

  6    *ARTR     53.00 2.65                  7
  6    *OPPO      1.00 5.00E-02              1
   PER GRASS     26.20  1.31                20      37.06    1.85    1.41 177.95
  3    AGSM      15.50 .775       41.9      19      26.79    1.41    1.73  128.64
  3    POSE      10.20 .510       27.6      20       9.77    0.49    0.96  46.913
  3    STCO       0.50 2.50E-02 1.35         1       0.50    0.50    1.00  2.4008
   ANN GRASS     10.70  0.53                18      13.10    0.73    1.22  62.90
  5    BRTE      10.10 .505       27.3      18
  5    FEOC       0.60 3.00E-02 1.62         5
   ANN FORBS      0.10  0.00                 1       0.03    0.03    0.30   0.14
  4    PLSP       0.10 T          .270       1
     TOTAL             4.55     100.00              50.190                  241.00

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

   ARTR                                                                88.34
   OPPO                                                                10.66
                                                       Shrub Prod.     99.00

                                                             Total    340.00


PRECIPITATION DATA
 RAIN GUAGE NO.         COCHRA EXCL            JULY    24/74
OCT. 15 TO APR. 15 =   3.62
APR. 15 TO JULY 1  =    .91
JULY 1 TO SEPT. 1  =   1.67
SEPT. 1 TO OCT. 15 =   2.35
SEASON TOTAL       =   8.55
LONG TERM AVERAGE  =  10.03                           Utilization      6.43

   **Production adjusted for utilization       Production Adjusted   346.43
```

1501 COCHRA EXCL JULY 24/74 INSIDE PITTED

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	165.00	8.25		10				
	PER GRASS	7.70	0.38		14	8.21	0.59	1.07	39.42
3	AGSM	3.00	.150	10.4	14	5.24	0.37	1.75	25.161
3	POSE	4.70	.235	16.3	12	2.97	0.25	0.63	14.261
	ANN GRASS	21.10	1.05		20	18.63	0.93	0.88	89.46
5	BRTE	20.50	1.02	71.2	20				
5	FEOC	0.60	3.00E-02	2.08	6				
	TOTAL		9.69	100.00		26.840			128.88

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub production observed

PRECIPITATION DATA
RAIN GUAGE NO. COCHRA EXCL JULY 24/74
OCT. 15 TO APR. 15 = 3.62
APR. 15 TO JULY 1 = .91
JULY 1 TO SEPT. 1 = 1.67
SEPT. 1 TO OCT. 15 = 2.35
SEASON TOTAL = 8.55
LONG TERM AVERAGE = 10.03

**No utilization

1501 COCHRA EXCL JULY 24/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
PER GRASS		23.70	1.18		19	30.88	1.63	1.30	148.28
3	AGSM	7.90	.395	14.2	19	18.29	0.96	2.32	87.823
3	AGSP	1.50	7.50E-02	2.70	1	1.50	1.50	1.00	7.2025
3	BOGR	0.50	2.50E-02	.899	1	0.48	0.48	0.96	2.3048
3	POSE	12.50	.625	22.5	17	9.42	0.55	0.75	45.232
3	STCO	1.30	6.50E-02	2.34	2	1.19	0.59	0.92	5.7140
ANN GRASS		31.90	1.59		19	29.16	1.53	0.91	140.02
5	BRTE	28.70	1.43	51.6	19				
5	FEOC	3.20	.160	5.76	9				
TOTAL			2.78	100.00		60.040			288.29

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

OPPO	1.85
Shrub Prod.	1.85
Total	290.14

PRECIPITATION DATA
RAIN GUAGE NO. COCHRA EXCL JULY 24/74
OCT. 15 TO APR. 15 = 3.62
APR. 15 TO JULY 1 = .91
JULY 1 TO SEPT. 1 = 1.67
SEPT. 1 TO OCT. 15 = 2.35
SEASON TOTAL = 8.55
LONG TERM AVERAGE = 10.03

Utilization	4.75
Production Adjusted	294.89

**Production adjusted for utilization

```
           1901   CUMBER EXCL    NO.  1 AUGUST 12/74  INSIDE NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT  PLANT    TOTAL  AVE.     PERCENT  ABS.     TOTAL   AVE.    WGT./   LBS
CODE   NAME     TRANS  PER-     COMPO-   PLOT     WGT.    WGT.    UNIT    PER
                BASAL  CENT     SITION   FREQ.    GMS/20  /PLOT   BASAL   AC.
                AREA   BASAL             BASE     SQ.FT.  OCCUR-  AREA
                PER-   AREA              20               RENCES
                CENT

 6    *ARTR     169.00 8.45               7
 6    *CHVI     114.00 5.70               8
 6    *SAVE      25.00 1.25               1
 1     ATNU      24.00 1.20      39.9     3        9.67   3.22    0.40   46.432
  PER GRASS      32.30  1.61             19       75.77   3.99    2.35  363.82
 3     AGSM      16.80 .840      28.0    19       58.60   3.08    3.49   281.38
 3     POSE      15.50 .775      25.8    17       17.17   1.01    1.11   82.445
  PER FORBS       3.80  0.19             10        3.28   0.33    0.86   15.75
 2     PHMU       3.60 .180      5.99    10
 2     TRI        0.20 1.00E-02 .333      2
    TOTAL             18.40     100.00            88.720                 426.01

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	175.44
SAUE	23.38
CHUI	25.20
PHHO	7.97
TESP	1.73
Shrub Prod.	233.72
Total	659.73

```
PRECIPITATION DATA
 RAIN GUAGE NO.        CUMBER EXCL    NO.  1 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**No utilization

```
21 35   FEB 10  RUNPARA...
          1901   CUMBER EXCL   NO.  1 AUGUST 12/74  OUT    NATIVE

                             NUMBER PLOTS = 20
                               PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARTR    366.00 18.3                9
  6    *CHVI     43.10 2.15                4
  6    *PHHO      1.50 7.50E-02            2
  6    *SAVE     32.00 1.60                3
  6    *TESP      5.00 .250                1
  1     ATNU     21.00 1.05       59.0     3       6.16    2.05    0.29    29.578
   PER GRASS     12.40  0.62              15      20.47    1.36    1.65    98.29
  3     AGSM      7.50 .375       21.1    15      14.29    0.95    1.91    68.616
  3     ORHY      1.40 7.00E-02 3.93       4       2.17    0.54    1.55    10.420
  3     POSE      2.80 .140       7.87     6       1.92    0.32    0.69    9.2193
  3     SIHY      0.70 3.50E-02 1.97       3       2.09    0.70    2.99    10.036
   PER FORBS      2.00  0.10               9       1.40    0.16    0.70     6.72
  2     PHMU      2.00 .100       5.62     9
   ANN FORBS      0.20  0.01               1       0.03    0.03    0.15     0.14
  4     LARE      0.10 T          .281     1
  4     SAKA      0.10 T          .281     1
     TOTAL            24.16     100.00            28.060                   134.74

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	76.17
SAUE	12.76
CHUI	38.87
PHHO	2.88
TESP	3.17
Shrub Prod.	133.85
Total	268.59

```
PRECIPITATION DATA
 RAIN GUAGE NO.        CUMBER EXCL   NO.  1 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

	Utilization	31.62
**Production adjusted for utilization	Production Adjusted	300.21

1901 CUMBER EXCL NO. 1 AUGUST 12/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*CHVI	25.00	1.25		1				
6	*SAVE	65.00	3.25		1				
	PER GRASS	31.60	1.58		20	66.50	3.32	2.10	319.31
3	AGSM	27.00	1.35	69.4	20	59.96	3.00	2.22	287.91
3	POSE	1.70	8.50E-02	4.37	6	2.67	0.44	1.57	12.821
3	SIHY	2.90	.145	7.46	4	3.87	0.97	1.33	18.583
	PER FORBS	7.30	0.36		14	5.68	0.41	0.78	27.27
2	PHMU	7.30	.365	18.8	14				
	TOTAL		6.44	100.00		72.180			346.59

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	4.61
CHUI	21.98
PHHO	.53
Shrub Prod.	27.12
Total	374.71

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO. 1 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization

```
        1901   CUMBER EXCL   NO.  1 AUGUST 12/74  OUT    SPRAY

                          NUMBER PLOTS = 20
                            PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.    TOTAL  AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT    WGT.   WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.   GMS/20 /PLOT   BASAL  AC.
               AREA   BASAL           BASE    SQ.FT. OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

  6   *CHVI     5.00 .250               7
  6   *SAVE     2.00 .100               1
   PER GRASS   18.50  0.22             20      24.50   1.22   1.32 117.64
  3    AGSM    16.10 .805      68.8    20      22.66   1.13   1.41  108.81
  3    ORHY     0.10 T         .427     1       0.10   0.10   1.00  .48017
  3    POSE     2.30 .115      9.83     9       1.74   0.19   0.76  8.3549
   PER FORBS    3.40  0.17             13       2.32   0.18   0.68  11.14
  2    PHMU     3.30 .165      14.1    13
  2    TRI      0.10 T         .427     1
   ANN FORBS    1.50  0.07              6       1.47   0.18   0.98   7.06
  4    LARE     1.50 7.50E-02 6.41      8
    TOTAL            1.52    100.00            28.290               135.84

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		9.22
SAUE		11.33
CHUI		13.39
	Shrub Prod.	33.94
	Total	169.78

```
PRECIPITATION DATA
 RAIN GUAGE NO.        CUMBER EXCL   NO.  1 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**Production adjusted for utilization	Utilization	54.15
	Production adjusted	223.93

```
14 49    MAR 06  RUN02BA...
              1201    CUMBER EXCL    NO.2    AUG      13/74  INSIDE NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.    UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-  AREA
                PER-    AREA             20              RENCES
                CENT

  6    *ARHO      7.00 .350                 2
  6    *ARTR    129.00 6.45                 7
  6    *CHVI    177.00 8.85                12
  6    *ERMI      8.00 .400                 2
   PER GRASS     30.20  1.51               20     56.46    2.82   1.87 271.10
  3    AGSM      12.90 .645        15.7    20     31.14    1.56   2.41  149.52
  3    KOCR       0.40 2.00E-02 .487        1      0.31    0.31   0.77  1.4885
  3    POFE      12.90 .645        15.7    15     19.02    1.27   1.47  91.328
  3    POSE       4.00 .200        4.87     7      5.99    0.86   1.50  28.762
   PER FORBS     45.00  2.25               10     11.62    1.16   0.26  55.80
  2    AST        0.20 T           .243     1
  2    CAST       2.00 .100        2.43     1
  2    EROV      39.00 1.95        47.4     9
  2    ERPU       0.10 T           .122     1
  2    LILE       0.20 T           .243     1
  2    PHLO       1.10 5.50E-02 1.34        6
  2    TRI        2.40 .120        2.92    10
   ANN FORBS      7.00  0.35                2      0.11    0.05   0.02   0.53
  4    ARHO2      7.00 .350        8.52     2
     TOTAL             20.16      100.00          68.190                327.43

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE
```

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR		75.86
CHUI		146.57
ERMI		4.93
TECA		2.08
LEPU		2.08
	Shrub Prod.	231.52
	Total	558.95

```
PRECIPITATION DATA
 RAIN GUAGE NO.        CUMBER EXCL    NO.2    AUG      13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**No utilization

```
09 40   MAR 18  RUNGUAA...
           1201    CUMBER EXCL   NO.2   AUG    13/74  OUT    NATIVE

                          NUMBER PLOTS = 20
                            PLOT SIZE 1X1
PLANT  PLANT  TOTAL   AVE.   PERCENT  ABS.   TOTAL  AVE.    WGT./  LBS
CODE   NAME   TRANS   PER-   COMPO-   PLOT   WGT.   WGT.    UNIT   PER
              BASAL   CENT   SITION   FREQ.  GMS/20 /PLOT   BASAL  AC.
              AREA    BASAL           BASE   SQ.FT. OCCUR-  AREA
              PER-    AREA            20            RENCES
              CENT

  6    *ARTR  183.10 9.15                   12
  6    *CHVI  111.00 5.55                   13
  6    *ERMI   20.00 1.00                    9
   PER GRASS   21.80  1.09                  20      25.89   1.29  1.19 124.32
  3    AGSM     8.70 .435       27.5        20      15.64   0.78  1.80  75.098
  3    POFE     5.60 .280       17.7        11       3.77   0.34  0.67  18.102
  3    POSE     7.50 .375       23.7        16       6.48   0.40  0.86  31.115
   PER FORBS    9.80  0.49                  13       4.10   0.32  0.42  19.69
  2    ASDI     0.30 1.50E-02 .949           1
  2    AST      4.70 .235       14.9         4
  2    EROV     0.50 2.50E-02 1.58           1
  2    ERPU     0.60 3.00E-02 1.90           2
  2    PHLO     2.70 .135       8.54        13
  2    TRI      1.00 5.00E-02 3.16           9
     TOTAL          17.28     100.00            29.990                   144.00

       * NCT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	117.85
CHUI	79.64
ERMI	20.74
TECA	6.65
LEPU	0.55
Shrub Prod.	225.46
Total	369.46

```
PRECIPITATION DATA
 RAIN GUAGE NO.      CUMBER EXCL    NO.2   AUG    13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

Utilization	48.15
Production adjusted	417.61

**Production adjusted for utilization

```
         1201   CUMBER EXCL   NO.2   AUG     13/74  INSIDE SPRAY

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.    TOTAL   AVE.     WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT    WGT.    WGT.     UNIT    PER
                BASAL   CENT    SITION   FREQ.   GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL            BASE    SQ.FT.  OCCUR-   AREA
                PER-    AREA             20              RENCES
                CENT

  6   *TECA     7.00 .350                  1
   PER GRASS   35.20  1.76                20     92.38    4.62    2.62 443.58
  3    AGSM    19.60 .980        39.5     20     69.77    3.49    3.56  335.01
  3    POFE    12.80 .640        25.8     15     21.10    1.41    1.65  101.32
  3    POSE     2.80 .140        5.65      6      1.51    0.25    0.54  7.2506
   PER FORBS   14.40  0.72                13      6.94    0.53    0.48  33.32
  2    ASDI     0.50 2.50E-02 1.01         1
  2    AST      0.30 1.50E-02 .605         1
  2    EROV     7.00 .350        14.1      1
  2    LILE     1.30 6.50E-02 2.62         2
  2    PHLO     1.60 8.00E-02 3.23         7
  2    TRI      3.70 .185        7.46     13
     TOTAL           2.83      100.00            99.320                     476.90

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

CHUI		6.78
TECA		2.08
ERMI		1.29
	Shrub Prod.	10.15
	Total	487.05

```
PRECIPITATION DATA
 RAIN GUAGE NO.       CUMBER EXCL   NO.2    AUG     13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**No utilization

1201 CUMBER EXCL NO.2 AUG 13/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	9.00	.450		2				
6	*CHVI	12.00	.600		3				
6	*ERMI	1.10	5.50E-02		2				
6	*TECA	10.00	.500		1				
PER GRASS		26.70	1.33		20	21.13	1.06	0.79	101.46
3	AGSM	15.60	.780	35.9	20	12.75	0.64	0.82	61.222
3	ORHY	0.30	1.50E-02	.691	1	0.19	0.19	0.63	.91232
3	POFE	3.80	.190	8.76	11	3.27	0.30	0.86	15.702
3	POSE	7.00	.350	16.1	14	4.92	0.35	0.70	23.624
PER FORBS		16.60	0.83		10	7.03	0.70	0.42	33.76
2	AST	2.30	.115	5.30	2				
2	EROV	1.80	9.00E-02	4.15	2				
2	LILE	9.00	.450	20.7	8				
2	PHLO	2.00	.100	4.61	9				
2	TRI	1.50	7.50E-02	3.46	10				
ANN FORBS		0.10	0.00		1	0.02	0.02	0.20	0.10
4	LARE	0.10	T	.230	1				
	TOTAL		3.77	100.00		28.180			135.31

* NCT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	2.71
TECA	0.69
CHUI	1.69
ERMI	1.29
Shrub Prod.	6.38
Total	141.69

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO.2 AUG 13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization	44.92
Production adjusted	186.61

**Production adjusted for utilization

1202 CUMBER EXCL NO.3 AUG 13/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	426.00	21.3		12				
6	*CHVI	59.00	2.95		11				
6	*ERMI	6.00	.300		3				
6	*PHHO	34.00	1.70		6				
PER GRASS		17.90	0.89		19	35.20	1.85	1.97	169.02
3	AGSM	8.40	.420	19.8	19	19.88	1.05	2.37	95.458
3	POFE	7.80	.390	18.4	7	13.33	1.90	1.71	64.007
3	POSE	1.70	8.50E-02	4.00	5	1.99	0.40	1.17	9.5554
PER FORBS		11.00	0.55		16	12.20	0.76	1.11	58.58
2	ASDI	1.80	9.00E-02	4.24	3				
2	COPA	1.00	5.00E-02	2.35	1				
2	PHLO	5.20	.260	12.2	16				
2	TRI	3.00	.150	7.06	11				
ANN FORBS		13.60	0.68		5	7.38	1.48	0.54	35.44
4	ARHO2	1.00	5.00E-02	2.35	1				
4	CORA	12.60	.630	29.6	5				
	TOTAL		28.37	100.00		54.780			263.04

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	816.37
CHUI	150.29
ERMI	2.98
PHHO	7.06
TECA	3.02
Shrub Prod.	979.72
Total	1242.76

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO.3 AUG 13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization

```
          1202   CUMBER EXCL   NO.3   AUG    13/74  OUT    NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.     TOTAL   AVE.    WGT./  LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT     WGT.    WGT.    UNIT   PER
                BASAL   CENT    SITION   FREQ.    GMS/20  /PLOT   BASAL  AC.
                AREA    BASAL            BASE     SQ.FT.  OCCUR-  AREA
                PER-    AREA             20               RENCES
                CENT

  6    *ARTR    216.00 10.8                  8
  6    *CHVI     94.00 4.70                 11
  6    *ERMI      3.00 .150                  1
  6    *PHHO     44.50 2.22                 10
  6    *TECA     12.00 .600                  1
   PER GRASS     15.30  0.76                18      22.70    1.26   1.48 109.00
  3    AGSM       7.60 .380        30.6     18      12.88    0.72   1.69  61.846
  3    POFE       5.80 .290        23.4     10       7.01    0.70   1.21  33.660
  3    POSE       1.90 9.50E-02 7.66         8       2.81    0.35   1.48  13.493
   PER FORBS      8.10  0.40                12       4.46    0.37   0.55  21.42
  2    AST        4.10 .205        16.5      4
  2    PHLO       2.70 .135        10.9     12
  2    TRI        1.30 6.50E-02 5.24         7
   ANN FORBS      1.40  0.07                 3       1.63    0.54   1.16   7.83
  4    CORA       1.40 7.00E-02 5.65         3
     TOTAL            19.71     100.00              28.790                138.24

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	536.64
PHHO	31.57
ERMI	12.19
CHUI	18.43
EROU	1.82
EULA	2.59
Shrub Prod.	603.24
Total	741.48

```
PRECIPITATION DATA
 RAIN GUAGE NO.       CUMBER EXCL   NO.3   AUG    13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

Utilization	22.46
Production adjusted	763.95

**Production adjusted for utilization

1202 CUMBER EXCL NO.3 AUG 13/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*CHVI	4.50	.225		2				
6	*ERMI	4.00	.200		2				
6	*PHHO	1.00	5.00E-02		1				
PER GRASS		35.80	1.79		14	121.77	8.70	3.40	584.70
3	AGSM	12.40	.620	29.8	14	51.14	3.65	4.12	245.56
3	AGSP	17.90	.895	43.0	9	54.35	6.04	3.04	260.97
3	POFE	4.30	.215	10.3	6	13.47	2.24	3.13	64.679
3	POSE	1.20	6.00E-02	2.88	5	2.81	0.56	2.34	13.493
PER FORBS		5.80	0.29		14	6.61	0.47	1.14	31.74
2	ASDI	0.60	3.00E-02	1.44	1				
2	PHLO	3.60	.180	8.65	14				
2	TRI	1.60	8.00E-02	3.85	7				
	TOTAL		2.55	100.00		128.38			616.44

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

CHUI	28.27
PHHO	0.67
TECA	1.15
Shrub Prod.	30.09
Total	646.53

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO.3 AUG 13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

** No utilization

1202 CUMBER EXCL NO.3 AUG 13/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ANDI	17.50	.875		7				
6	*ARTR	10.00	.500		3				
6	*CHVI	25.00	1.25		3				
6	*ERMI	22.00	1.10		3				
6	*PHHO	5.00	.250		1				
6	*TECA	10.00	.500		1				
	PER GRASS	20.30	1.01		19	43.71	2.30	2.15	209.88
3	AGSM	12.90	.645	43.4	19	28.64	1.51	2.22	137.52
3	AGSP	3.80	.190	12.8	4	9.94	2.48	2.62	47.729
3	POFE	1.80	9.00E-02	6.06	4	3.37	0.84	1.87	16.182
3	POSE	1.80	9.00E-02	6.06	7	1.76	0.25	0.98	8.4510
	PER FORBS	4.90	0.24		13	3.19	0.25	0.65	15.32
2	PHLO	3.00	.150	10.1	13				
2	TRI	1.90	9.50E-02	6.40	8				
	ANN FORBS	4.50	0.22		3	3.58	1.19	0.80	17.19
4	CORA	4.50	.225	15.2	3				
	TOTAL		5.96	100.00		50.480			242.39

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	61.78
CHUI	16.75
TECA	0.24
PHHO	2.69
ERMI	7.06
Shrub Prod.	88.52
Total	330.91

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO.3 AUG 13/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization

1902 CUMBER EXCL NO. 4 AUGUST 12/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARSP	48.20	2.41		10				
6	*EULA	5.00	.250		1				
6	*PHHO	2.00	.100		1				
1	ATNU	196.00	9.80	91.9	14	64.66	4.62	0.33	310.48
	PER GRASS	17.20	0.86		16	35.63	2.23	2.07	171.08
3	ORHY	1.00	5.00E-02	.469	1	2.77	2.77	2.77	13.301
3	SIHY	16.20	.810	7.60	16	32.86	2.05	2.03	157.78
	TOTAL		13.42	100.00		100.29			481.56

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

PHHO	2.02
TESP	2.16
Shrub Prod.	4.18
Total	485.74

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO. 4 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization

1902 CUMBER EXCL NO. 4 AUGUST 12/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARSP	18.00	.900		4				
6	*EULA	3.00	.150		1				
6	*TESP	28.00	1.40		2				
1	ATNU	260.00	13.0	98.0	15	58.88	3.93	0.23	282.72
PER GRASS		5.00	0.25		15	5.31	0.35	1.06	25.50
3	SIHY	5.00	.250	1.88	15	5.31	0.35	1.06	25.497
ANN FORBS		0.30	0.01		2	0.04	0.02	0.13	0.17
4	DEPI	0.10	T	3.77E-02	1				
4	LARE	0.20	1.00E-02	7.54E-02	2				
TOTAL			15.71	100.00		64.230			308.41

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

CHUI	2.21
PHHO	.53
TESP	3.98
Shrub Prod.	6.72
Total	315.13

PRECIPITATION DATA
RAIN GUAGE NO. CUMBER EXCL NO. 4 AUGUST 12/74
OCT. 15 TO APR. 15 =
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization	8.92
Production adjusted	324.05

**Production adjusted for utilization

```
          2004   DEMER  EXCL             JULY   22/74  INSIDE NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.   PERCENT  ABS.     TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-   COMPO-   PLOT     WGT.    WGT.    UNIT    PER
                 BASAL   CENT   SITION   FREQ.    GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL           BASE     SQ.FT.  OCCUR-  AREA
                 PER-    AREA            20               RENCES
                 CENT

  6   *ARTR    112.00 5.60                5
  6   *OPPO     49.00 2.45                3
   PER GRASS    11.50  0.57               6      10.73    1.79   0.93   51.52
  3    AGSM      0.50 2.50E-02 2.09       2       0.82    0.41   1.64   3.9374
  3    BOGR      6.80 .340     28.5       6       4.65    0.77   0.68   22.328
  3    POSE      1.20 6.00E-02 5.02       5       1.52    0.30   1.27   7.2986
  3    SIHY      3.00 .150     12.6       1       3.74    3.74   1.25   17.958
   ANN GRASS    12.30  0.61              18      17.39    0.97   1.41   83.50
  5    BRTE     11.30 .565     47.3      18
  5    FEOC      1.00 5.00E-02 4.18       7
   ANN FORBS     0.10  0.00               1       0.02    0.02   0.20    0.10
  4    PLSP      0.10 T        .418       1
     TOTAL            9.24    100.00             28.140                 135.12

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		228.86
OPPO		85.82
	Shrub Prod.	314.68
	Total	449.80

```
PRECIPITATION DATA
 RAIN GUAGE NO.        DEMER  EXCL            JULY   22/74
OCT. 15 TO APR. 15 =  2.55
APR. 15 TO JULY 1  =   .56
JULY 1 TO SEPT. 1  =   .82
SEPT. 1 TO OCT. 15 =  2.74
SEASON TOTAL       =  6.07
LONG TERM AVERAGE  =  7.95
```

**No utilization

```
          20.4    DEMER  EXCL             JULY    22/74  OUT     NATIVE

                                   NUMBER PLOTS = 20
                                     PLOT SIZE 1X1
PLANT  PLANT    TOTAL   AVE.     PERCENT   ABS.     TOTAL   AVE.    WGT./   LBS
CODE   NAME     TRANS   PER-     COMPO-    PLOT     WGT.    WGT.    UNIT    PER
                BASAL   CENT     SITION    FREQ.    GMS/20  /PLOT   BASAL   AC.
                AREA    BASAL              BASE     SQ.FT.  OCCUR-  AREA
                PER-    AREA               20               RENCES
                CENT

 6    *ARTR     46.00 2.30                  4
 6    *OOPC     45.00 2.25                  3
  PER GRASS     11.60  0.58                10     10.64    1.06    0.92    51.09
 3    AGSM       0.20 T            .830     1      0.36    0.36    1.80    1.7286
 3    BOGR       9.60 .480         39.8    10      6.93    0.67    0.72    33.276
 3    POSE       0.90 4.50E-02 3.73         4      0.86    0.21    0.96    4.1295
 3    SIHY       0.90 4.50E-02 3.73         2      2.49    1.24    2.77    11.956
  ANN GRASS     12.10  0.60                20     18.69    0.93    1.54    89.74
 5    BRTE       8.80 .440         36.5    20
 5    FEOC       3.30 .165         13.7    12
  ANN FORBS      0.40  0.02                 3      0.06    0.02    0.15     0.27
 4    PLSP       0.40 2.00E-02 1.66         3
    TOTAL             5.75     100.00             29.390                   141.12

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		189.36
OPPO		13.15
	Shrub Prod.	202.51
	Total	343.63

```
PRECIPITATION DATA
 RAIN GUAGE NO.         DEMER  EXCL              JULY    22/74
OCT. 15 TO APR. 15 =   2.55
APR. 15 TO JULY 1  =    .56
JULY 1 TO SEPT. 1  =    .82
SEPT. 1 TO OCT. 15 =   2.14
SEASON TOTAL       =   6.07
LONG TERM AVERAGE  =   7.95
```

**No utilization

```
21 50   FEB 18  RUNXABA...
            2005    DUTCH  NICK    FLATS   JULY    16/74  INSIDE NATIVE

                                        NUMBER PLOTS = 20
                                          PLOT SIZE 1X1
PLANT   PLANT   TOTAL    AVE.     PERCENT   ABS.     TOTAL    AVE.     WGT./    LBS
CODE    NAME    TRANS    PER-     COMPO-    PLOT     WGT.     WGT.     UNIT     PER
                BASAL    CENT     SITION    FREQ.    GMS/20   /PLOT    BASAL    AC.
                AREA     BASAL              BASE     SQ.FT.   OCCUR-   AREA
                PER-     AREA               20                RENCES
                CENT

  6    *OPPO     98.00 4.90                   9
   PER GRASS     99.10  4.95                 20       33.33    1.67    0.34 160.04
  3    BOGR      96.50 4.82  .     97.2      20       31.99    1.60    0.33  153.61
  3    POSE       2.60 .130        2.62       3        1.34    0.45    0.52  6.4343
   ANN FORBS      0.20  0.01                  1        0.03    0.03    0.15    0.14
  4    CHEN       0.10 T           .101       1
  4    PLPA       0.10 T           .101       1
     TOTAL             9.86      100.00               33.360                 160.18

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

 OPPO                                                                         60.38
                                                             Shrub Prod.      60.38
                                                                   Total     220.56

PRECIPITATION DATA
 RAIN GUAGE NO.           DUTCH   NICK    FLATS   JULY    16/74
OCT. 15 TO APR. 15  =   1.35
APR. 15 TO JULY 1   =   1.20
JULY 1 TO SEPT. 1   =    .87
SEPT. 1 TO OCT. 15  =    .50
SEASON TOTAL        =   3.92
LONG TERM AVERAGE   =   6.74
```

**No utilization

```
                    2005    DUTCH  NICK    FLATS  JULY    16/74  OUT     NATIVE

                                      NUMBER PLOTS = 20
                                        PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL             BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA              20               RENCES
                 CENT

  6   *OPPC      36.00 1.80                  6
   PER GRASS    119.40  5.97                20       35.22    1.76   0.29 169.12
  3    BOGR     118.00 5.90         98.1    20       34.19    1.71   0.29  164.17
  3    POSE       1.40 7.00E-02 1.16         3        1.03    0.34   0.74  4.9457
   ANN FORBS      0.90  0.04                 7        0.65    0.09   0.72    3.12
  4    LARE       0.20 T            .166     1
  4    PLPA       0.70 3.50E-02 .582         7
     TOTAL             7.81     100.00              35.870                 172.24

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO

	144.34
Shrub Prod.	144.34
Total	316.58

```
PRECIPITATION DATA
 RAIN GUAGE NO.          DUTCH  NICK    FLATS   JULY    16/74
OCT. 15 TO APR. 15 =   1.35
APR. 15 TO JULY 1  =   1.20
JULY 1 TO SEPT. 1  =    .87
SEPT. 1 TO OCT. 15 =    .50
SEASON TOTAL       =   3.92
LONG TERM AVERAGE  =   6.74
```

**No utilization

```
           0404    FARSON EXCL           AUG      14/74  INSIDE NATIVE

                               NUMBER PLOTS = 20
                                 PLOT SIZE 1X1
PLANT   PLANT    TOTAL  AVE.    PERCENT  ABS.     TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS  PER-    COMPO-   PLOT     WGT.    WGT.    UNIT    PER
                 BASAL  CENT    SITION   FREQ.    GMS/20  /PLOT   BASAL   AC.
                 AREA   BASAL            BASE     SQ.FT.  OCCUR-  AREA
                 PER-   AREA             20               RENCES
                 CENT

  6    *ARTR   138.00 6.90                9
  6    *CHVI    13.30 .665                5
  6    *PHHO    52.00 2.60                8
   PER GRASS    13.70  0.68              19      21.99    1.16   1.61 105.59
  3     AGSM     6.50 .325       47.4    19      11.83    0.62   1.82  56.804
  3     CAEL     1.30 6.50E-02 9.49       6       1.07    0.18   0.82  5.1378
  3     ORHY     0.40 2.00E-02 2.92       2       0.95    0.47   2.37  4.5616
  3     POSE     2.50 .125       18.2     2       3.93    1.96   1.57  18.871
  3     SIHY     0.50 2.50E-02 3.65       2       0.44    0.22   0.88  2.1127
  3     STCO     2.50 .125       18.2     5       3.77    0.75   1.51  18.102
     TOTAL            10.85     100.00           21.990                105.59

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	158.93
PHHO	104.11
ARHO	.46
CHUI	18.58
ATCO	2.45
EULA	1.87
Shrub Prod.	286.40
Total	391.99

```
PRECIPITATION DATA
 RAIN GUAGE NO.        FARSON EXCL            AUG     14/74
OCT. 15 TO APR. 15 =  4.05
APR. 15 TO JULY 1  =   .70
JULY 1 TO SEPT. 1  =  0.00
SEPT. 1 TO OCT. 15 =   .15
SEASON TOTAL       =  4.91
LONG TERM AVERAGE  =  6.53
```

**No utilization

0404 FARSON EXCL AUG 14/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARHO	21.00	1.05		3				
6	*ARTR	151.00	7.55		10				
6	*CHVI	28.10	1.40		7				
6	*FULA	0.50	2.50E-02		1				
6	*PHHO	47.00	2.35		10				
	PER GRASS	9.70	0.48		18	16.56	0.92	1.71	79.52
3	AGSM	6.20	.310	63.9	18	9.91	0.55	1.60	47.585
3	CAEL	0.60	3.00E-02	6.19	2	1.11	0.55	1.85	5.3299
3	ORHY	1.20	6.00E-02	12.4	4	3.14	0.78	2.62	15.077
3	POSE	0.50	2.50E-02	5.15	2	0.60	0.30	1.20	2.8810
3	SIHY	0.40	2.00E-02	4.12	2	0.38	0.19	0.95	1.8246
3	STCO	0.80	4.00E-02	8.25	2	1.42	0.71	1.77	6.8184
	TOTAL		12.86	100.00		16.560			79.516

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	121.78
CHUI	14.21
PHHO	57.79
ARHO	103.63
TESP	1.67
ATCO	4.51
Shrub Prod.	303.59
Total	383.106

PRECIPITATION DATA
RAIN GUAGE NO. FARSON EXCL AUG 14/74
OCT. 15 TO APR. 15 = 4.05
APR. 15 TO JULY 1 = .70
JULY 1 TO SEPT. 1 = 0.00
SEPT. 1 TO OCT. 15 = .15
SEASON TOTAL = 4.91
LONG TERM AVERAGE = 6.53

**No utilization

1007 GRANIT MOUNT EXCL AUGUST 15/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	121.00	6.05		12				
6	*CHVI	4.00	.200		1				
6	*PHHO	20.00	1.00		5				
	PER GRASS	36.10	1.80		20	50.54	2.53	1.40	242.68
3	AGSM	9.50	.475	19.3	20	22.81	1.14	2.40	109.53
3	POFE	25.50	1.27	51.9	17	25.95	1.53	1.02	124.60
3	POSE	1.10	5.50E-02	2.24	7	1.78	0.25	1.62	8.5470
	PER FORBS	12.80	0.64		6	5.80	0.97	0.45	27.85
2	AST	5.50	.275	11.2	6				
2	ERPU	1.20	6.00E-02	2.44	2				
2	HAAC	4.00	.200	8.15	1				
2	SEN	2.00	.100	4.07	1				
2	TRI	0.10	T	.204	1				
	ANN FORBS	0.20	0.01		2	0.21	0.10	1.05	1.01
4	SIS	0.20	1.00E-02	.407	2				
	TOTAL		9.70	100.00		56.550			271.54

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	136.56
CHUI	21.60
PHHO	30.05
Shrub Prod.	188.21
Total	459.75

PRECIPITATION DATA
RAIN GUAGE NO. GRANIT MOUNT EXCL AUGUST 15/74
OCT. 15 TO APR. 15 = 3.02
APR. 15 TO JULY 1 = .50
JULY 1 TO SEPT. 1 = 1.44
SEPT. 1 TO OCT. 15 = .48
SEASON TOTAL = 5.44
LONG TERM AVERAGE = 8.70

**No utilization

1007 GRANIT MOUNT EXCL AUGUST 15/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	116.00	5.80		7				
6	*CHVI	3.00	.150		1				
6	*PHHC	22.00	1.10		9				
PER GRASS		24.90	1.24		20	39.77	1.99	1.60	190.96
3	AGSM	7.70	.385	25.5	20	15.23	0.76	1.98	73.130
3	POFE	14.90	.745	49.3	19	21.08	1.11	1.41	101.22
3	POSE	2.30	.115	7.62	10	3.46	0.35	1.50	16.614
PER FORBS		4.90	0.24		11	3.44	0.31	0.70	16.52
2	AST	4.00	.200	13.2	11				
2	ERPU	0.90	4.50E-02	2.98	6				
ANN FORBS		0.40	0.02		2	0.28	0.14	0.70	1.34
4	SIS	0.40	2.00E-02	1.32	2				
TOTAL			8.56	100.00		43.490			208.83

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR		90.67
PHHO		48.62
CHUI		5.01
	Shrub Prod.	144.30
	Total	353.13

PRECIPITATION DATA
RAIN GUAGE NO. GRANIT MOUNT EXCL AUGUST 15/74
OCT. 15 TO APR. 15 = 3.02
APR. 15 TO JULY 1 = .50
JULY 1 TO SEPT. 1 = 1.44
SEPT. 1 TO OCT. 15 = .48
SEASON TOTAL = 5.44
LONG TERM AVERAGE = 8.70

**No utilization

```
17 30   FEB 24  RUNNHAA...
            1007   GRANIT MOUNT  EXCL   AUGUST 15/74  INSIDE SPRAY

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20  /PLOT   BASAL  AC.
              AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
              PER-   AREA            20             RENCES
              CENT

  6   *ARTR   188.50 9.42             11
  6   *CHVI    28.00 1.40              1
   PER GRASS   33.90  1.69            20     52.67   2.63   1.55 252.91
  3    AGSM    10.60 .530      31.0   20     24.41   1.22   2.30  117.21
  3    POFE    22.50 1.12      65.8   17     26.99   1.59   1.20  129.60
  3    POSE     0.80 4.00E-02 2.34     5      1.27   0.25   1.59  6.0982
   PER FORBS    0.30  0.01             2      0.11   0.05   0.37    0.53
  2    AST      0.30 1.50E-02 .877     2
     TOTAL          12.53    100.00          52.780                253.43

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR 27.98

Shrub Prod. 27.98

Total 281.41

```
PRECIPITATION DATA
 RAIN GUAGE NO.         GRANIT MOUNT  EXCL   AUGUST 15/74
OCT. 15 TO APR. 15 =  3.02
APR. 15 TO JULY 1  =   .50
JULY 1 TO SEPT. 1  =  1.44
SEPT. 1 TO OCT. 15 =   .48
SEASON TOTAL       =  5.44
LONG TERM AVERAGE  =  8.70
```

**No utilization

```
22 47    FEB 16  RUNRBBA...
          1007   GRANIT MOUNT   EXCL    AUGUST 15/74   OUT     SPRAY

                                      NUMBER PLOTS = 20
                                        PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT    ABS.     TOTAL    AVE.      WGT./    LBS
CODE    NAME     TRANS   PER-     COMPO-     PLOT     WGT.     WGT.      UNIT     PER
                 BASAL   CENT     SITION     FREQ.    GMS/20   /PLOT     BASAL    AC.
                 AREA    BASAL               BASE     SQ.FT.   OCCUR-    AREA
                 PER-    AREA                20                RENCES
                 CENT

  6    *ARTR    127.10  6.35                  13
  6    *CHVI     29.10  1.45                   4
  6    *PHHO     21.50  1.07                   9
   PER GRASS     31.00   1.55                 20      38.29     1.91     1.24   183.86
  3    AGSM      10.40  .520        31.1      20      16.66     0.83     1.60    79.996
  3    POFE      16.40  .820        49.1      17      16.97     1.00     1.03    81.485
  3    POSE       4.20  .210        12.6      12       4.66     0.39     1.11    22.376
   PER FORBS      2.30   0.11                  5       1.70     0.34     0.74     8.16
  2    AST        0.80  4.00E-02  2.40         5
  2    ERPU       1.40  7.00E-02  4.19         3
  2    TRI        0.10  T          .299        1
   ANN FORBS      0.10   0.00                  1       0.01     0.01     0.10     0.05
  4    SIS        0.10  T          .299        1
    TOTAL               10.55     100.00              40.000                     192.07

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

                                                                             43.66
ARTR                                                                          4.49
CHUI                                                                          7.49
PHHO
                                                                Shrub Prod.  55.44

                                                                      Total 247.51


PRECIPITATION DATA
 RAIN GUAGE NO.          GRANIT MOUNT   EXCL    AUGUST 15/74
OCT. 15 TO APR. 15 =     3.02
APR. 15 TO JULY 1  =      .50
JULY 1 TO SEPT. 1  =     1.44
SEPT. 1 TO OCT. 15 =      .48
SEASON TOTAL       =     5.44
LONG TERM AVERAGE  =     8.70


**No utilization
```

0901 HALOGE PASTUR EXCL 1 JULY 10/74 INSIDE NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARSP	0.1	T		1				
1	ATNU	1453.5	7.27	99.0	133	394.72	2.97	0.27	189.53
	PER GRASS	13.8	6.90E-02		30	19.48	0.65	1.41	9.3537
3	POSE	6.1	3.05E-02	.415	10	7.04	0.70	1.15	3.3804
3	SIHY	7.7	3.85E-02	.524	30	12.44	0.41	1.62	5.9733
	ANN FORBS	1.50	0.01		5	1.17	0.23	0.78	0.56
4	DEPI	0.6	T	4.08E-02	4				
4	LARE	0.4	T	2.72E-02	3				
4	OESC	0.5	T	3.40E-02	5				
	TOTAL		7.3	100.00		415.370			199.448

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

OPPO	7.10
ARTR	42.77
TESP	2.83
ARSP	.14
Shrub Prod.	52.84
Total	252.288

PRECIPITATION DATA
RAIN GUAGE NO. HALOGE PASTUR EXCL 1 JULY 10/74
OCT. 15 TO APR. 15 = 1.74
APR. 15 TO JULY 1 = 1.36
JULY 1 TO SEPT. 1 = 1.03
SEPT. 1 TO OCT. 15 = .42
SEASON TOTAL = 4.55
LONG TERM AVERAGE = 5.39

**No utilization

```
16 56   FEB 18  RUNZ3AA...
         0905   HALOGE PASTUR EXCL 2 JULY   10/74  INSIDE NATIVE

                              NUMBER OF PLOTS
                        COVER = 200, PRODUCTION = 20
                         PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABSH   TOTAL  AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/   /PLOT   BASAL  AC.
               AREA   BASAL           BASE   200    OCCUR-  AREA
               PER-   AREA            200    SQ.FT. RENCES
               CENT

 6  *ARSP      8.0  4.00E-02              1
 6  *OPPO     52.0  .260                  3
 1  ATNU     926.1  4.63       95.1     139    301.53   2.17   0.33   144.79
  PER GRASS   46.8  .234                 75    104.78   1.40   2.24   50.312
 3  POSE       4.1  2.05E-02 .421        15      6.22   0.41   1.52   2.9867
 3  SIHY      42.7  .213       4.38      75     98.56   1.31   2.31   47.325
  ANN FORBS    1.00  0.00                 6      1.04   0.17   1.04    0.50
 4  LARE       0.4  T          4.11E-02  2
 4  MATA       0.6  T          6.16E-02  6
    TOTAL           5.2      100.00           407.350                 195.597

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
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OPPO	5.52
ARSP	.34
Shrub Prod.	5.86
Total	201.4570

```
PRECIPITATION DATA
 RAIN GUAGE NO.        HALOGE PASTUR EXCL 2 JULY   10/74
OCT. 15 TO APR. 15 =   .85
APR. 15 TO JULY 1  =  2.18
JULY 1 TO SEPT. 1  =  1.83
SEPT. 1 TO OCT. 15 =   .41
SEASON TOTAL       =  5.27
LONG TERM AVERAGE  =  5.79
```

**No utilization

```
20 41    FEB 13  RUNLVBA...
            0903    HALOGE PASTUR EXCL 3 JULY    10/74   INSIDE NATIVE

                              NUMBER OF PLOTS
                        COVER = 200, PRODUCTION = 20
                         PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/    /PLOT    BASAL   AC.
                 AREA    BASAL             BASE     200     OCCUR-   AREA
                 PER-    AREA              200      SQ.FT.  RENCES
                 CENT

  6   *ARSP      212.0   1.06               22
  6   *CPPO       50.0   .250                6
  1   ATNU       752.0   3.76      91.1     82     214.75    2.62    0.29   103.12
   PER GRASS      26.5   .132               28      74.59    2.66    2.81   35.816
  3   SIHY        26.5   .132      3.21     28      74.59    2.66    2.81   35.816
   PER FORBS      0.60   0.00                3       0.98    0.33    1.63     0.47
  2   TRMI         0.6   T       7.27E-02    3
   ANN FORBS     46.30   0.23               92      61.79    0.67    1.33    29.67
  4   MATA        46.3   .231      5.61     92
      TOTAL              5.4     100.00           352.110                  169.072

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO 3.74

Shrub Prod. 3.74

Total 172.81

```
PRECIPITATION DATA
 RAIN GUAGE NO.         HALOGE PASTUR EXCL 3 JULY    10/74
OCT. 15 TO APR. 15 =    .78
APR. 15 TO JULY 1  =   2.04
JULY 1 TO SEPT. 1  =   1.47
SEPT. 1 TO OCT. 15 =    .32
SEASON TOTAL       =   4.61
LONG TERM AVERAGE  =   5.20
```

**No utilization

0913 HORSE CREEK EXCL JULY 23/74 INSIDE AGSM

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	15.00	.750		2				
6	*OPPO	15.00	.750		3				
	PER GRASS	27.60	1.38		20	51.82	2.59	1.88	248.82
3	AGSM	26.80	1.34	92.7	20	51.11	2.56	1.91	245.41
3	POSE	0.80	4.00E-02	2.77	5	0.71	0.14	0.89	3.4092
	ANN GRASS	1.30	0.06		8	1.71	0.21	1.32	8.21
5	BRCO	0.30	1.50E-02	1.04	2				
5	BRTE	1.00	5.00E-02	3.46	8				
	TOTAL		2.94	100.00		53.530			257.03

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	80.30
OPPO	6.29
GUSA	3.94
Shrub Prod.	90.53
Total	347.56

PRECIPITATION DATA
RAIN GUAGE NO. HORSE CREEK EXCL JULY 23/74
OCT. 15 TO APR. 15 = 2.10
APR. 15 TO JULY 1 = 2.74
JULY 1 TO SEPT. 1 = 1.44
SEPT. 1 TO OCT. 15 = 1.10
SEASON TOTAL = 7.38
LONG TERM AVERAGE = 11.28

**No utilization

```
          0913   HORSE  CREEK  EXCL   JULY   23/74  OUT    AGSM

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
              PER-   AREA            20            RENCES
              CENT

 6   *ARTR    97.00 4.85                9
 6   *OPPO     0.30 1.50E-02            1
  PER GRASS   24.00  1.20              20   33.87   1.69  1.41 162.63
 3   AGSM     24.00 1.20     100.      20   33.87   1.69  1.41  162.63
    TOTAL           6.06   100.00           33.870                162.63

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	113.33
GUSA	27.50
OPPO	17.95
PHHO	5.62
Shrub Prod.	164.40
Total	327.03

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PRECIPITATION DATA
 RAIN GUAGE NO.      HORSE  CREEK  EXCL   JULY   23/74
OCT. 15 TO APR. 15 =  2.10
APR. 15 TO JULY 1  =  2.74
JULY 1 TO SEPT. 1  =  1.44
SEPT. 1 TO OCT. 15 =  1.10
SEASON TOTAL       =  7.58
LONG TERM AVERAGE  = 11.28
```

Utilization 56.92

Production adjusted 383.95

**Production adjusted for utilization

0913 HORSE CREEK EXCL JULY 23/74 INSIDE AGSP

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	43.00	2.15		3				
6	*GUSA	0.50	2.50E-02		1				
6	*OPPO	6.00	.300		1				
6	*PHHO	4.80	.240		3				
PER GRASS		47.70	2.38		19	49.92	2.63	1.05	239.70
3	AGSM	0.80	4.00E-02	1.68	2	1.22	0.61	1.52	5.8581
3	AGSP	46.70	2.33	97.9	19	48.50	2.55	1.04	232.88
3	POSE	0.20	1.00E-02	.419	2	0.20	0.10	1.00	.96034
	TOTAL		5.10	100.00		49.920			239.70

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	34.42
GUSA	2.78
OPPO	4.89
ARNO	5.23
HAAC	2.02
Shrub Prod.	49.34
Total	289.04

PRECIPITATION DATA
RAIN GUAGE NO. HORSE CREEK EXCL JULY 23/74
OCT. 15 TO APR. 15 = 2.10
APR. 15 TO JULY 1 = 2.74
JULY 1 TO SEPT. 1 = 1.44
SEPT. 1 TO OCT. 15 = 1.10
SEASON TOTAL = 7.38
LONG TERM AVERAGE = 11.28

**No utilization

0913 HORSE CREEK EXCL JULY 23/74 OUT AGSP

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	110.00	5.50		6				
6	*EULA	1.50	7.50E-02		1				
6	*GUSA	72.00	3.60		10				
6	*PHHO	11.50	.575		9				
	PER GRASS	12.10	0.60		14	28.97	2.07	2.39	139.11
3	AGSM	6.40	.320	30.3	14	15.74	1.12	2.46	75.579
3	AGSP	5.10	.255	24.2	7	12.78	1.83	2.51	61.366
3	POSE	0.60	3.00E-02	2.84	4	0.45	0.11	0.75	2.1608
	PER FORBS	9.00	0.45		2	2.12	1.06	0.24	10.18
2	HAAC	3.00	.150	14.2	1				
2	SPCO	3.00	.150	14.2	2				
2	VIO	3.00	.150	14.2	1				
	TOTAL		10.80	100.00		31.090			149.28

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	107.57
GUSA	90.34
OPPO	9.79
PHHO	8.78
Shrub Prod.	216.48
Total	365.76

PRECIPITATION DATA
RAIN GUAGE NO. HORSE CREEK EXCL JULY 23/74
OCT. 15 TO APR. 15 = 2.10
APR. 15 TO JULY 1 = 2.74
JULY 1 TO SEPT. 1 = 1.44
SEPT. 1 TO OCT. 15 = 1.10
SEASON TOTAL = 7.38
LONG TERM AVERAGE = 11.28

Utilization	47.93
Production adjusted	413.69

**Production adjusted for utilization

0914 KANE DEER EXCL AUGUST 8/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*GUSA	23.00	1.15		3				
6	*JUOS	110.00	5.50		2				
6	*PHHO	0.10	T		1				
	PER GRASS	1.50	0.07		4	1.58	0.39	1.05	7.59
3	AGGR	1.30	6.50F-02	29.5	4	1.28	0.32	0.98	6.1462
3	AGSP	0.20	T	4.55	1	0.30	0.30	1.50	1.4405
	PER FORBS	2.70	0.13		6	1.30	0.22	0.48	6.24
2	EROV	0.10	T	2.27	1				
2	GISP	2.60	.130	59.1	6				
	ANN FORBS	0.20	0.01		1	0.02	0.02	0.10	0.10
4	LARE	0.10	T	2.27	1				
4	MATA	0.10	T	2.27	1				
	TOTAL		6.87	100.00		2.9000			13.925

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE DEER EXCL AUGUST 8/74
OCT. 15 TO APR. 15 = 2.78
APR. 15 TO JULY 1 = 4.03
JULY 1 TO SEPT. 1 = 1.78
SEPT. 1 TO OCT. 15 = 1.25
SEASON TOTAL = 9.84
LONG TERM AVERAGE = 12.51

**No utilization

0914 KANE DEER EXCL AUGUST 8/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*GUSA	1.50	7.50E-02		3				
6	*JUOS	300.00	15.0		4				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	4.70	0.23		9	3.81	0.42	0.81	18.29
3	AGGR	4.30	.215	62.3	9	3.76	0.42	0.87	18.054
3	POSE	0.40	2.00E-02	5.80	2	0.05	0.02	0.12	.24008
	PER FORBS	0.70	0.03		3	0.39	0.13	0.56	1.87
2	EROV	0.10	T	1.45	1				
2	GISP	0.60	3.00E-02	8.70	3				
	ANN FORBS	1.50	0.07		3	1.28	0.43	0.85	6.15
4	MATA	1.50	7.50E-02	21.7	3				
	TOTAL		15.47	100.00		5.4800			26.313

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE DEER EXCL AUGUST 8/74

OCT. 15 TO APR. 15 = 2.78
APR. 15 TO JULY 1 = 4.03
JULY 1 TO SEPT. 1 = 1.78
SEPT. 1 TO OCT. 15 = 1.25
SEASON TOTAL = 9.84
LONG TERM AVERAGE = 12.31

Utilization	2.71
Production Utilized	29.02

**Production adjusted for utilization

0914 KANE DEER EXCL AUGUST 8/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARHO	1.80	9.00E-02		3				
6	*GUSA	13.50	.675		4				
	PER GRASS	27.00	1.35		14	20.43	1.46	0.76	98.10
3	AGSP	13.20	.660	20.9	14	13.40	0.96	1.02	64.343
3	ARLO	1.00	5.00E-02	1.58	1	2.05	2.05	2.05	9.8435
3	POSE	12.50	.625	19.7	8	4.76	0.59	0.38	22.856
3	STCO	0.30	1.50E-02	.474	1	0.22	0.22	0.73	1.0564
	PER FORBS	18.70	0.93		5	7.26	1.45	0.39	34.86
2	CIR	2.00	.100	3.16	1				
2	FRCO	16.20	.810	25.6	5				
2	PELA	0.50	2.50E-02	.790	2				
	ANN GRASS	0.10	0.00		1	0.01	0.01	0.10	0.05
5	BRTE	0.10	T	.158	1				
	ANN FORBS	17.50	0.87		10	5.32	0.53	0.30	25.55
4	CAMI	0.10	T	.158	1				
4	DEPI	0.20	1.00E-02	.316	2				
4	FROC	7.50	.475	15.0	9				
4	LAC	2.20	.110	3.48	7				
4	LARE	2.10	.105	3.32	10				
4	MATA	3.40	.170	5.37	4				
	TOTAL		3.93	100.00		33.020			158.55

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE DEER EXCL AUGUST 8/74
OCT. 15 TO APR. 15 = 2.78
APR. 15 TO JULY 1 = 4.03
JULY 1 TO SEPT. 1 = 1.78
SEPT. 1 TO OCT. 15 = 1.25
SEASON TOTAL = 3.84
LONG TERM AVERAGE = 12.31

**No utilization

0914 KANE DEER EXCL AUGUST 8/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARFR	3.00	.150		2				
6	*GUSA	47.40	2.37		7				
6	*JUOS	30.00	1.50		1				
	PER GRASS	8.20	0.41		6	6.23	1.04	0.76	29.91
3	AGCR	0.20	T	.414	1	0.07	0.07	0.35	0.34
3	AGSP	2.60	.130	5.38	6	2.33	0.39	0.90	11.188
3	POSE	3.40	.170	7.04	6	2.38	0.40	0.70	11.428
3	STCO	2.00	.100	4.14	1	1.52	1.52	0.76	7.2986
	PER FORBS	7.10	0.35		4	5.52	1.38	0.78	26.51
2	ERCO	3.60	.180	7.45	4				
2	PELA	3.50	.175	7.25	3				
	ANN FORBS	33.00	1.65		7	30.41	4.34	0.92	146.02
4	CAMI	1.20	6.00E-02	2.48	2				
4	EROC	10.00	.500	20.7	7				
4	LAC	2.70	.135	5.59	7				
4	LARE	0.40	2.00E-02	.828	3				
4	MATA	5.20	.260	10.8	4				
4	PHLI	13.50	.675	28.0	5				
	TOTAL		6.43	100.00		42.160			202.44

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE DEER EXCL AUGUST 8/74
OCT. 15 TO APR. 15 = 2.78
APR. 15 TO JULY 1 = 4.03
JULY 1 TO SEPT. 1 = 1.78
SEPT. 1 TO OCT. 15 = 1.25
SEASON TOTAL = 9.84
LONG TERM AVERAGE = 12.31

Utilization 2.36

**Production adjusted for utilization — Production Adjusted 204.80

0921 KANE G.R.I. EXCL AUGUST 7/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*GUSA	16.00	.800		5				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	21.50	1.07		9	42.42	4.71	1.97	203.69
3	AGSP	15.00	.750	31.1	9	35.74	3.97	2.38	171.61
3	HOJU	4.00	.200	8.28	1	3.96	3.96	0.99	19.015
3	POSE	2.50	.125	5.18	3	2.72	0.91	1.09	13.061
	PER FORBS	4.20	0.21		2	2.71	1.35	0.65	13.01
2	EROV	0.20	T	.414	1				
2	GISP	1.00	5.00E-02	2.07	1				
2	PELA	3.00	.150	6.21	2				
	ANN FORBS	22.60	1.13		8	15.45	1.93	0.68	74.19
4	LAC	15.40	.770	31.9	8				
4	LARE	0.20	T	.414	1				
4	SAKA	7.00	.350	14.5	1				
	TOTAL		3.26	100.00		60.580			290.89

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE G.R.I. EXCL AUGUST 7/74
OCT. 15 TO APR. 15 = 2.72
APR. 15 TO JULY 1 = 4.18
JULY 1 TO SEPT. 1 = 1.85
SEPT. 1 TO OCT. 15 = 1.57
SEASON TOTAL = 10.32
LONG TERM AVERAGE = 13.05

Utilization 25.74

**Production adjusted for utilization

Production adjusted 316.63

0921 KANE G.R.I. EXCL AUGUST 7/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARHO	8.50	.425		7				
6	*ARNO	84.00	4.20		7				
6	*GUSA	3.50	.175		4				
6	*JUOS	7.00	.350		1				
6	*PHHO	2.50	.125		2				
	PER GRASS	2.60	0.13		4	2.04	0.51	0.78	9.80
3	AGGR	2.60	.130	24.5	4	2.04	0.51	0.78	9.7955
	PER FORBS	7.70	0.38		6	3.53	0.59	0.46	16.95
2	EROV	0.10	T	.943	1				
2	GISP	4.00	.200	37.7	6				
2	PELA	3.60	.180	34.0	4				
	ANN FORBS	0.30	0.01		1	0.10	0.10	0.33	0.48
4	DEPI	0.30	1.50E-02	2.83	1				
	TOTAL		5.80	100.00		5.6700			27.226

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. KANE G.R.I. EXCL AUGUST 7/74
OCT. 15 TO APR. 15 = 2.72
APR. 15 TO JULY 1 = 4.18
JULY 1 TO SEPT. 1 = 1.85
SEPT. 1 TO OCT. 15 = 1.57
SEASON TOTAL = 10.32
LONG TERM AVERAGE = 13.05

**No utilization

1502 KIRBY CREEK EXCL JULY 24/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*SAVE	235.00	11.8		7				
	PER GRASS	13.10	0.65		11	28.93	2.63	2.21	138.91
3	AGSM	10.20	.510	77.9	11	26.09	2.37	2.56	125.28
3	POSE	2.90	.145	22.1	7	2.84	0.41	0.98	13.637
	TOTAL		12.40	100.00		28.930			138.91

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

SAVE		228.77
	Shrub Prod.	228.77
	Total	367.68

PRECIPITATION DATA
RAIN GUAGE NO. KIRBY CREEK EXCL JULY 24/74
OCT. 15 TO APR. 15 = E4.00
APR. 15 TO JULY 1 = 1.14
JULY 1 TO SEPT. 1 = 1.00
SEPT. 1 TO OCT. 15 = 2.12
SEASON TOTAL = 8.26
LONG TERM AVERAGE = 8.94

**No utilization

E = Estimated

```
        1502   KIRBY  CREEK  EXCL   JULY   24/74  OUT    NATIVE

                            NUMBER PLOTS = 20
                              PLOT SIZE 1X1
PLANT  PLANT  TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.    WGT./  LBS
CODE   NAME   TRANS  PER-   COMPO-   PLOT   WGT.   WGT.    UNIT   PER
              BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT   BASAL  AC.
              AREA   BASAL           BASE   SQ.FT. OCCUR-  AREA
              PER-   AREA            20            RENCES
              CENT

 6   *SAVE    40.00 2.00              5
  PER GRASS   15.30  0.76             9     24.64   2.74   1.61 118.31
 3   AGSM     13.40 .670      84.8    9     23.23   2.58   1.73  111.54
 3   POSE      1.90 9.50E-02 12.0     5      1.41   0.28   0.74  6.7704
  PER FORBS    0.50  0.02             1      0.08   0.08   0.16   0.38
 2   SPCO      0.50 2.50E-02 3.16     1
   TOTAL            2.79    100.00          24.720                118.70

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

   SAVE                                                           180.77
   OPPO                                                             3.17
                                                     Shrub Prod.  183.94

                                                           Total  302.64

PRECIPITATION DATA
 RAIN GUAGE NO.       KIRBY  CREEK  EXCL   JULY   24/74
OCT. 15 TO APR. 15 =  E4.00
APR. 15 TO JULY 1  =   1.14
JULY 1 TO SEPT. 1  =   1.00
SEPT. 1 TO OCT. 15 =   2.12
SEASON TOTAL       =   8.26
LONG TERM AVERAGE  =   8.94

                                                 Utilization    16.73
**Production adjusted for utilization     Production adjusted  319.37

  E = Estimated
```

1001 LANDER ANT EXCL AUG 15/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	260.30	13.0		14				
6	*OPPO	40.00	2.00		2				
6	*PHHO	8.80	.440		4				
	PER GRASS	13.70	0.68		20	24.91	1.25	1.82	119.61
3	AGSM	7.90	.395	37.4	20	19.20	0.96	2.43	92.193
3	POSE	2.60	.130	12.3	13	1.83	0.14	0.70	8.7871
3	STCO	3.20	.160	15.2	6	3.88	0.65	1.21	18.631
	PER FORBS	6.00	0.30		6	1.85	0.31	0.31	8.88
2	ASPU	2.00	.100	9.48	1				
2	SPCO	4.00	.200	19.0	6				
	ANN FORBS	1.40	0.07		13	0.65	0.05	0.46	3.12
4	PLPA	1.40	7.00E-02	6.64	13				
	TOTAL		16.51	100.00		27.410			131.61

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	228.15
PHHO	11.81
OPPO	12.82
Shrub Prod.	252.78
Total	384.39

PRECIPITATION DATA
RAIN GUAGE NO. LANDER ANT EXCL AUG 15/74
OCT. 15 TO APR. 15 = RI -
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 = DR6.50
SEASON TOTAL =
LONG TERM AVERAGE =

RI = Record Incomplete

**No utilization

1001 LANDER ANT EXCL AUG 15/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	349.20	17.5		18				
6	*OPPO	16.00	.800		2				
6	*PHHO	4.00	.200		2				
	PER GRASS	21.80	1.09		19	40.35	2.12	1.85	193.75
3	AGSM	8.90	.445	34.4	19	25.22	1.33	2.83	121.10
3	BOGR	7.40	.370	28.6	4	7.30	1.82	0.99	35.052
3	POSE	2.50	.125	9.65	14	4.28	0.31	1.71	20.551
3	STCO	3.00	.150	11.6	7	3.55	0.51	1.18	17.046
	PER FORBS	1.50	0.07		3	0.18	0.06	0.12	0.86
2	SPCO	1.50	7.50E-02	5.79	3				
	ANN FORBS	2.60	0.13		13	1.84	0.14	0.71	8.84
4	PLPA	2.60	.130	10.0	13				
	TOTAL		19.75	100.00		42.370			203.45

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	156.09
PHHO	11.66
OPPO	38.77
Shrub Prod.	206.52
Total	409.97

PRECIPITATION DATA
RAIN GUAGE NO. LANDER ANT EXCL AUG 15/74
OCT. 15 TO APR. 15 = RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 = DR6.50
SEASON TOTAL =
LONG TERM AVERAGE =

RI = Record Incomplete

**Production adjusted for utilization

Utilization	7.77
Production adjusted	417.74

14 47 OCT 29 RUNZYAA...
1003 LOWER GOVT DRAW AUG 19/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	262.00	13.1		11				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	26.60	1.33		20	44.64	2.23	1.68	214.35
3	AGSM	9.60	.480	21.9	20	23.45	1.17	2.44	112.60
3	POSE	3.10	.155	7.08	5	1.83	0.37	0.59	8.7871
3	STCO	13.90	.695	31.7	8	19.36	2.42	1.39	92.961
	PER FORBS	11.00	0.55		2	8.66	4.33	0.79	41.58
2	AST	5.00	.250	11.4	2				
2	SPCO	1.00	5.00E-02	2.28	1				
2	TRDU	5.00	.250	11.4	1				
	ANN GRASS	5.70	0.28		16	12.13	0.76	2.13	58.24
5	BRTE	5.70	.285	13.0	16				
	ANN FORBS	0.50	0.02		3	0.47	0.16	0.94	2.26
4	PLPA	0.50	2.50E-02	1.14	3				
	TOTAL		15.34	100.00		65.900			316.43

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	469.68
PHHO	8.69
OPPO	1.39
Shrub Prod.	479.76
Total	796.19

PRECIPITATION DATA

RAIN GUAGE NO.	LOWER GOVT DRAW AUG 19/74
OCT. 15 TO APR. 15 =	RI RI
APR. 15 TO JULY 1 =	
JULY 1 TO SEPT. 1 =	
SEPT. 1 TO OCT. 15 =	
SEASON TOTAL =	
LONG TERM AVERAGE =	

RI = Record Incomplete
**No utilization

1003 LOWER GOVT DRAW AUG 19/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	327.00	16.3		11				
6	*CHVI	20.00	1.00		1				
6	*EULA	25.00	1.25		2				
	PER GRASS	28.00	1.40		18	27.21	1.51	0.97	130.65
3	AGSM	8.70	.435	23.3	18	13.37	0.74	1.54	64.199
3	KOCR	3.50	.175	9.38	2	1.77	0.88	0.51	8.4990
3	POSE	8.70	.435	23.3	17	6.52	0.38	0.75	31.307
3	STCO	7.10	.355	19.0	7	5.55	0.79	0.78	26.649
	PER FORBS	3.30	0.16		4	1.51	0.38	0.46	7.25
2	SPCO	3.30	.165	8.85	4				
	ANN GRASS	4.10	0.20		16	6.34	0.40	1.55	30.44
5	BRTE	3.50	.175	9.38	16				
5	FEOC	0.60	3.00E-02	1.61	4				
	ANN FORBS	1.90	0.09		7	3.93	0.56	2.07	18.87
4	PLPA	1.90	9.50E-02	5.09	7				
	TOTAL		20.46	100.00		38.990			187.22

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	436.51
OPPO	3.56
PHHO	.62
Shrub Prod.	440.69
Total	627.91

PRECIPITATION DATA
RAIN GUAGE NO. LOWER GOVT DRAW AUG 19/74
OCT. 15 TO APR. 15 = RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization	36.09
Production adjusted	663.99

**Production adjusted for utilization
RI = Record Incomplete

1003 LOWER GOVT DRAW AUG 19/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
	PER GRASS	66.50	3.32		17	63.66	3.74	0.96	305.68
3	AGSM	10.40	.520	13.6	17	29.70	1.75	2.86	142.61
3	POSE	2.50	.125	3.28	7	2.99	0.43	1.20	14.357
3	STCO	53.60	2.68	70.3	14	30.97	2.21	0.58	148.71
	ANN GRASS	9.00	0.45		20	19.61	0.98	2.18	94.16
5	BRTE	9.00	.450	11.8	20				
	ANN FORBS	0.70	0.03		3	0.23	0.08	0.33	1.10
4	LARE	0.10	T	.131	1				
4	PLPA	0.60	3.00E-02	.787	3				
	TOTAL		3.81	100.00		83.500			400.94

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	10.22
OPPO	.82
Shrub Prod.	11.04
Total	411.98

PRECIPITATION DATA
RAIN GUAGE NO. LOWER GOVT DRAW AUG 19/74
OCT. 15 TO APR. 15 = RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization
RI = Record Incomplete

1003 LOWER GOVT DRAW AUG 19/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	13.00	.650		2				
	PER GRASS	26.30	1.31		20	26.25	1.31	1.00	126.04
3	AGSM	15.40	.770	49.4	20	14.30	0.71	0.93	68.664
3	POSE	7.90	.395	25.3	20	9.61	0.48	1.22	46.144
3	STCO	3.00	.150	9.62	3	2.34	0.78	0.78	11.236
	PER FORBS	1.60	0.08		2	0.26	0.13	0.16	1.25
2	SPCO	1.60	8.00E-02	5.13	2				
	ANN GRASS	2.90	0.14		13	4.19	0.32	1.44	20.12
5	BRTE	2.90	.145	9.29	13				
	ANN FORBS	0.40	0.02		1	0.07	0.07	0.17	0.34
4	GARA	0.10	T	.321	1				
4	LARE	0.20	T	.641	1				
4	PLSP	0.10	T	.321	1				
	TOTAL		2.21	100.00		30.770			147.75

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	22.99
OPPO	1.87
Shrub Prod.	24.86
Total	172.61

PRECIPITATION DATA
RAIN GUAGE NO. LOWER GOVT DRAW AUG 19/74
OCT. 15 TO APR. 15 = RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization	56.05
Production adjusted	228.66

**Production adjusted for utilization
RI = Record Incomplete

1004 MCGRAW FLATS EXCL AUGUST 16/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	175.00	8.75		15				
6	*CHVI	52.00	2.60		5				
6	*PHHO	66.00	3.30		11				
PER GRASS		24.60	1.23		20	46.38	2.32	1.89	222.70
3	AGSM	13.40	.670	30.2	20	31.07	1.55	2.32	149.19
3	ORHY	0.50	2.50E-02	1.13	1	0.36	0.36	0.72	1.7286
3	POFE	9.60	.480	21.6	11	13.17	1.20	1.37	63.238
3	POSE	1.10	5.50E-02	2.48	5	1.78	0.36	1.62	8.5470
PER FORBS		7.80	0.39		4	2.08	0.52	0.27	9.99
2	ERPU	0.50	2.50E-02	1.13	1				
2	SPCO	5.90	.295	13.3	4				
2	VIAM	1.40	7.00E-02	3.15	3				
ANN FORBS		12.00	0.60		10	5.21	0.52	0.43	25.02
4	ARHO	0.70	3.50E-02	1.58	4				
4	CORA	11.30	.565	25.5	10				
	TOTAL		16.87	100.00		53.670			257.71

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	137.95
CHUI	4.66
LEPU	1.03
PHHO	45.50
Shrub Prod.	189.14
Total	446.850

PRECIPITATION DATA
RAIN GUAGE NO. MCGRAW FLATS EXCL AUGUST 16/74
OCT. 15 TO APR. 15 = RI RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

**No utilization
RI = Record Incomplete

1004 MCGRAW FLATS EXCL AUGUST 16/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	158.50	7.92		13				
6	*CHVI	23.00	1.15		3				
6	*PHHO	38.50	1.92		8				
	PER GRASS	27.00	1.35		20	36.33	1.82	1.35	174.45
3	AGSM	11.40	.570	22.4	20	24.57	1.23	2.16	117.98
3	POFE	14.70	.735	28.9	17	10.92	0.64	0.74	52.434
3	POSE	0.90	4.50E-02	1.77	5	0.84	0.17	0.93	4.0334
	PER FORBS	15.70	0.78		4	3.28	0.82	0.21	15.75
2	ERPU	6.20	.310	12.2	4				
2	MACA	2.20	.110	4.33	2				
2	SPCO	1.00	5.00E-02	1.97	1				
2	TRI	0.20	T	.394	1				
2	VIAM	6.10	.305	12.0	4				
	ANN FORBS	8.10	0.40		9	2.27	0.25	0.28	10.90
4	CORA	8.10	.405	15.9	9				
	TOTAL		13.54	100.00		41.880			201.09

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	102.26
CHUI	10.13
LEPU	.82
PHHO	55.21
Shrub Prod.	168.42
Total	369.51

PRECIPITATION DATA
RAIN GUAGE NO. MCGRAW FLATS EXCL AUGUST 16/74
OCT. 15 TO APR. 15 = RI RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization	39.29
Production adjusted	408.80

** Production adjusted for utilization
RI = Record Incomplete

0920 MEDICI LODGE EXCL AUGUST 8/74 INSIDE SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	65.00	3.25		3				
6	*JUSC	92.00	4.60		2				
	PER GRASS	35.90	1.79		9	21.68	2.41	0.60	104.10
3	AGSP	0.70	3.50E-02	1.42	3	1.21	0.40	1.73	5.8100
3	FEID	28.10	1.40	57.1	9	14.34	1.59	0.51	68.856
3	KOCR	2.20	.110	4.47	6	2.55	0.42	1.16	12.244
3	POSE	1.80	9.00E-02	3.66	8	1.14	0.14	0.63	5.4739
3	STCO	3.10	.155	6.30	7	2.44	0.35	0.79	11.716
	PER FORBS	0.20	0.01		1	0.12	0.12	0.60	0.58
2	UNK#2	0.20	T	.407	1				
	ANN GRASS	1.60	0.08		7	1.11	0.16	0.69	5.33
5	BRTE	1.10	5.50E-02	2.24	7				
5	FEOC	0.50	2.50E-02	1.02	4				
	ANN FORBS	11.50	0.57		19	8.09	0.43	0.70	38.85
4	LEDE	11.20	.560	22.8	19				
4	OEN	0.10	T	.203	1				
4	PLSP	0.20	T	.407	1				
	TOTAL		10.31	100.00		31.000			148.85

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. MEDICI LODGE EXCL AUGUST 8/74
OCT. 15 TO APR. 15 = 4.80
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = 1.21
SEPT. 1 TO OCT. 15 = 2.35
SEASON TOTAL = 12.66
LONG TERM AVERAGE = 13.82

**No utilization

0920 MEDICI LODGE EXCL AUGUST 8/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	4.20	.210		3				
6	*GUSA	3.50	.175		2				
6	*JUOS	50.00	2.50		2				
6	*PHHO	1.00	5.00E-02		1				
PER GRASS		8.00	0.40		11	5.74	0.52	0.72	27.56
3	AGSP	2.40	.120	11.1	7	2.11	0.30	0.88	10.132
3	KOCR	1.70	8.50E-02	7.87	5	1.53	0.31	0.90	7.3466
3	POSE	2.80	.140	13.0	11	1.56	0.14	0.56	7.4906
3	STCO	1.10	5.50E-02	5.09	4	0.54	0.13	0.49	2.5929
PER FORBS		0.10	0.00		1	0.52	0.52	5.20	2.50
2	ERPU	0.10	T	.463	1				
ANN FORBS		13.50	0.67		20	4.83	0.24	0.36	23.19
4	LEDE	13.50	.675	62.5	20				
	TOTAL		4.01	100.00		11.090			53.251

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

No shrub data collected

PRECIPITATION DATA
RAIN GUAGE NO. MEDICI LODGE EXCL AUGUST 8/74
OCT. 15 TO APR. 15 = 4.80
APR. 15 TO JULY 1 = 4.30
JULY 1 TO SEPT. 1 = 1.21
SEPT. 1 TO OCT. 15 = 2.35
SEASON TOTAL = 12.66
LONG TERM AVERAGE = 13.82

Utilization 2.03
Production adjusted 55.28

**Production adjusted for utilization

```
        2301    MESA    ANTELO EXCL    AUG     14/74  INSIDE NATIVE

                            NUMBER PLOTS = 20
                              PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS
CODE    NAME     TRANS   PER-     COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT     SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL              BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA               20               RENCES
                 CENT

  6     *ARTR    249.00 12.4                15
  6     *CHVI     28.00 1.40                 4
  6     *PHHO      7.50 .375                 4
   PER GRASS      12.00  0.60               18       18.65    1.04    1.55    89.55
  3      AGSM      8.00 .400        66.7    18       12.34    0.69    1.54    59.253
  3      POSE      2.20 .110        13.3     8        2.77    0.35    1.26    13.301
  3      SIHY      0.60 3.00E-02 5.00        3        0.80    0.27    1.33    3.8414
  3      STCO      1.20 6.00E-02 10.0        2        2.74    1.37    2.28    13.157
       TOTAL           14.82    100.00               18.650                   89.552

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	251.62
PHHO	34.46
CHUI	10.32
EROU	36.19
EULA	1.92
Shrub Prod.	334.51
Total	424.0620

```
PRECIPITATION DATA
 RAIN GUAGE NO.          MESA    ANTELO EXCL    AUG     14/74
OCT. 15 TO APR. 15 =    2.10
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =    2.00
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**No utilization

```
          2301   MESA   ANTELO EXCL   AUG    14/74  OUT    NATIVE

                              NUMBER PLOTS = 20
                                PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
               AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
               PER-   AREA            20            RENCES
               CENT

 6   *ARTR    234.50 11.7              14
 6   *CHVI     21.00 1.05               2
 6   *EULA      5.00 .250               2
 6   *PHHO     35.50 1.77               7
  PER GRASS    15.80  0.79             20    21.14   1.06   1.34 101.51
 3    AGSM      9.90 .495      62.3    20    13.36   0.67   1.35  64.151
 3    CAEL      1.30 6.50E-02 8.18      5     1.40   0.28   1.08  6.7224
 3    POSE      4.40 .220      27.7    11     6.14   0.56   1.40  29.482
 3    SIHY      0.20 T         1.26     1     0.24   0.24   1.20  1.1524
  PER FORBS     0.10  0.00              1     0.04   0.04   0.40   0.19
 2    ERPU      0.10 T         .529     1
    TOTAL           15.59    100.00         21.180                101.70

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	207.65
CHUI	6.00
PHHO	27.74
EULA	.24
EROU	6.62
Shrub Prod.	248.25
Total	349.95

```
PRECIPITATION DATA
 RAIN GUAGE NO.       MESA   ANTELO EXCL   AUG    14/74
OCT. 15 TO APR. 15 =  2.10
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =  2.00
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

Utilization	19.25
Production adjusted	369.19

**Production adjusted for utilization

```
10 09    JAN 06   RUNWDAA...
          1503    NORTH  BUTTE  EXCL    JULY   24/74  INSIDE RELIC

                                  NUMBER PLOTS = 20
                                     PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT    PER
                 BASAL   CENT    SITION    FREQ.   GMS/20  /PLOT   BASAL   AC.
                 AREA    BASAL             BASE    SQ.FT.  OCCUR-  AREA
                 PER-    AREA              20              RENCES
                 CENT

  6    *ARTR     65.00  3.25                  4
  6    *OPPO     10.00  .500                  1
  6    *PHHO      9.50  .475                  5
   PER GRASS     54.30   2.71                20    123.99    6.20   2.28  595.36
  3     AGSP     45.70  2.28        77.7     20    111.37    5.57   2.44   534.76
  3     CAFI      5.80  .290        9.86      7      6.34    0.91   1.09   30.443
  3     POSE      1.40  7.00E-02  2.38        7      2.41    0.34   1.72   11.572
  3     STCO      1.40  7.00E-02  2.38        4      3.87    0.97   2.76   18.583
   PER FORBS      4.30   0.21                 5      0.89    0.18   0.21     4.27
  2     SPCO      4.30  .215        7.31      5
   ANN FORBS      0.20   0.01                 1      0.13    0.13   0.65     0.62
  4     PLPA      0.20  T           .340      1
      TOTAL             7.16      100.00           125.01                  600.26

         * NOT COMPUTED IN PERCENT COMPOSITION
         T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		68.02
OPPO		.38
PHHO		2.26
	Shrub Prod.	70.66
	Total	670.92

```
PRECIPITATION DATA
 RAIN GUAGE NO.          NORTH   BUTTE   EXCL    JULY    24/74
OCT. 15 TO APR. 15 =  E4.50
APR. 15 TO JULY 1  =   2.00
JULY 1 TO SEPT. 1  =    .71
SEPT. 1 TO OCT. 15 =   1.10
SEASON TOTAL       =   8.31
LONG TERM AVERAGE  =   8.16
```

**No utilization
E = Estimated

```
      1504    ROUND  TOP     EXCL    JULU    27/74  INSIDE RELIC

                           NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.    PERCENT ABS.   TOTAL   AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-    COMPO-  PLOT   WGT.    WGT.    UNIT   PER
               BASAL  CENT    SITION  FREQ.  GMS/20  /PLOT   BASAL  AC.
               AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

 6    *ARTR   300.00 15.0               9
 6    *GUSA     5.00 .250               1
  PER GRASS    34.80  1.74             14     83.62   5.97   2.40 401.52
 3     AGSP    16.90 .845       48.1   14     57.62   4.12   3.41  276.67
 3     CAFI    11.10 .555       31.6   10     13.07   1.31   1.18  62.758
 3     KOCR     1.30 6.50E-02 3.70      5      3.43   0.69   2.64  16.470
 3     POSE     3.60 .180       10.3   13      4.60   0.35   1.28  22.088
 3     STCO     1.90 9.50E-02 5.41      2      4.90   2.45   2.58  23.528
  ANN GRASS     0.10  0.00              1      0.01   0.01   0.10    0.05
 5     BRTE     0.10 T          .285    1
  ANN FORBS     0.20  0.01              1      0.48   0.48   2.40    2.30
 4     LARE     0.20 T          .570    1
   TOTAL            17.00     100.00          84.110                403.87

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	17.57
GUSA	10.66
ARFR	4.18
ARHO(1)	4.32
Shrub Prod.	36.73
Total	440.60

```
PRECIPITATION DATA
 RAIN GUAGE NO.         ROUND   TOP     EXCL     JULU     27/74
OCT. 15 TO APR. 15  =    4.40
APR. 15 TO JULY 1   =    1.60
JULY 1 TO SEPT. 1   =   E0.65
SEPT. 1 TO OCT. 15  =   E1.00
SEASON TOTAL        =    7.65
LONG TERM AVERAGE   =   10.52
```

4.40
1.60
E 0.65
E 1.00
7.65
10.52

**No utilization

E = Estimated

```
       1505   SAND   GULCH  EXCL    JULY   17/74  INSIDE NATIVE

                          NUMBER OF PLOTS
                     COVER = 200, PRODUCTION = 20
                      PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.   WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/    /PLOT  BASAL  AC.
               AREA   BASAL           BASE   200     OCCUR- AREA
               PER-   AREA            200    SQ.FT.  RENCES
               CENT

 6  *CPPC      129.0  .645              17
 1   ATNU      855.0  4.27     80.6     85   296.08   3.48  0.35   142.17
  PER GRASS    170.8  .854             124   329.44   2.66  1.93   158.19
 3   AGCR       57.0  .285     5.38      3    43.90  14.63  0.77   21.079
 3   AGSM       91.6  .458     8.64    124   229.62   1.85  2.51   110.26
 3   CRHY        0.7  T        6.60E-02  2     3.30   1.65  4.71   1.5846
 3   POSE        3.3  1.65E-02 .311     22     4.40   0.20  1.33   2.1127
 3   SIHY        3.4  1.70E-02 .321      3     0.96   0.32  0.28   .46096
 3   SPAI       14.8  7.40E-02 1.40      5    47.26   9.45  3.19   22.693
  PER FORBS     0.50  0.00               2     0.67   0.33  1.34     0.32
 2   ERPU        0.2  T        1.89E-02  1
 2   SPCO        0.3  T        2.83E-02  2
  ANN GRASS    33.90  0.17             123    55.48   0.45  1.64    26.64
 5   BRTE       33.9  .169     3.20    123
  ANN FORBS     0.10  0.00               1     0.10   0.10  1.00     0.05
 4   PLSP        0.1  T        T         1
     TOTAL            5.9      100.00        681.770               327.365

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

  OPPO                                                        10.13
                                                 Shrub Prod.  10.13
                                                      Total  347.495


PRECIPITATION DATA
 RAIN GUAGE NO.         SAND    GULCH   EXCL    JULY    17/74
OCT. 15 TO APR. 15 =   E2.50
APR. 15 TO JULY 1  =    1.15
JULY 1 TO SEPT. 1  =    1.50
SEPT. 1 TO OCT. 15 =    1.61
SEASON TOTAL       =    6.76
LONG TERM AVERAGE  =    8.74
```

**No utilization
E = Estimated

1505 SAND GULCH EXCL JULY 17/74 OUT NATIVE

NUMBER OF PLOTS
COVER = 200, PRODUCTION = 20
PLOT SIZE 1 FT. X 10 FT.

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 200	TOTAL WGT. GMS/ 200 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*OPPO	197.0	.985		14				
1	ATNU	895.9	4.48	84.2	109	342.80	3.14	0.38	164.60
	PER GRASS	106.2	.531		107	235.80	2.20	2.22	113.22
3	AGSM	61.6	.308	5.79	107	173.89	1.63	2.82	83.497
3	BOGR	24.2	.121	2.28	16	34.88	2.18	1.44	16.748
3	ORHY	4.8	2.40E-02	.451	3	7.50	2.50	1.56	3.6013
3	POSE	12.5	6.25E-02	1.18	47	10.81	0.23	0.86	5.1906
3	SIHY	3.1	1.55E-02	.291	2	8.72	4.36	2.81	4.1871
	PER FORBS	0.50	0.00		2	0.24	0.12	0.48	0.12
2	SPCO	0.2	T	1.88E-02	2				
2	VIVA	0.3	T	2.82E-02	2				
	ANN GRASS	57.00	0.28		134	73.55	0.55	1.29	35.32
5	BRTE	56.8	.284	5.34	134				
5	FEOC	0.2	T	1.88E-02	2				
	ANN FORBS	4.10	0.02		33	0.66	0.02	0.16	0.32
4	PLSP	4.1	2.05E-02	.385	33				
	TOTAL		6.3	100.00		653.050			313.575

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

OPPO	20.64
Shrub Prod.	20.64
Total	334.2150

PRECIPITATION DATA
RAIN GUAGE NO. SAND GULCH EXCL JULY 17/74
OCT. 15 TO APR. 15 = E2.50
APR. 15 TO JULY 1 = 1.15
JULY 1 TO SEPT. 1 = 1.20
SEPT. 1 TO OCT. 15 = 1.61
SEASON TOTAL = 6.76
LONG TERM AVERAGE = 8.74

**No utilization
E = Estimated

```
10 47    NOV 18  RUNLFAA...
             1009    SHOSHO ANT NO EXCL 2 AUG     20/74   INSIDE NATIVE

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT   PLANT    TOTAL  AVE.    PERCENT   ABS.    TOTAL   AVE.     WGT./    LBS
CODE    NAME     TRANS  PER-    COMPO-    PLOT    WGT.    WGT.     UNIT     PER
                 BASAL  CENT    SITION    FREQ.   GMS/20  /PLOT    BASAL    AC.
                 AREA   BASAL             BASE    SQ.FT.  OCCUR-   AREA
                 PER-   AREA              20              RENCES
                 CENT

  6    *ARTR    202.00 10.1               10
  6    *OPPO     18.00 .900                2
   PER GRASS     56.50  2.82              14     28.92     2.07    0.51  138.86
  3     AGSM      1.80 9.00E-02 3.01       3      2.19     0.73    1.22   10.516
  3     BOGR     45.40 2.27      75.9     14     16.47     1.18    0.36   79.084
  3     POSE      3.00 .150      5.02      7      1.85     0.26    0.62   8.8831
  3     STCO      6.30 .315      10.5      4      8.41     2.10    1.33   40.382
   PER FORBS      2.00  0.10               2      0.67     0.33    0.33     3.22
  2     SPCO      2.00 .100      3.34      2
   ANN FORBS      1.30  0.06               7      0.61     0.09    0.47     2.93
  4     PLSP      1.30 6.50E-02 2.17       7
      TOTAL            13.99    100.00           30.200                   145.01

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		144.67
OPPO		13.78
PHHO		1.82
	Shrub Prod.	160.27
	Total	305.28

```
PRECIPITATION DATA
 RAIN GUAGE NO.         SHOSHO ANT NO EXCL 2 AUG      20/74
OCT. 15 TO APR. 15 =  2.27
APR. 15 TO JULY 1  =  1.27
JULY 1 TO SEPT. 1  =  1.07
SEPT. 1 TO OCT. 15 = E .85
SEASON TOTAL       =  5.46
LONG TERM AVERAGE  =  8.79
```

**No utilization

E = Estimated

1009 SHOSHO ANT SO EXCL 2 AUG 20/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER- CENT	AVE. PER- CENT BASAL AREA	PERCENT COMPO- SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT CCCUR- RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	226.00	11.3		12				
6	*OPPO	19.00	.950		4				
6	*PHHO	4.00	.200		1				
	PER GRASS	53.20	2.66		11	26.70	2.43	0.50	128.21
3	AGSM	7.20	.360	12.2	11	9.78	0.89	1.36	46.961
3	BOGR	31.40	1.57	53.2	11	7.04	0.64	0.22	33.804
3	POSE	3.10	.155	5.25	6	1.47	0.24	0.47	7.0585
3	STCO	11.50	.575	19.5	6	8.41	1.40	0.73	40.382
	PER FORBS	4.50	0.22		4	1.19	0.30	0.26	5.71
2	SPCO	4.50	.225	7.63	4				
	ANN FORBS	1.30	0.06		4	0.93	0.23	0.72	4.47
4	PLSP	1.30	6.50E-02	2.20	4				
	TOTAL		15.40	100.00		28.820			138.38

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	144.67
OPPO	13.78
PHHO	1.82
Shrub Prod.	160.27
Total	298.65

PRECIPITATION DATA

RAIN GUAGE NO.		SHOSHO ANT SO EXCL 2 AUG 20/74	
OCT. 15 TO APR. 15	=	2.27	2.27
APR. 15 TO JULY 1	=	1.27	1.27
JULY 1 TO SEPT. 1	=	1.07	1.07
SEPT. 1 TO OCT. 15	=	E .85	E.85
SEASON TOTAL	=	5.46	5.46
LONG TERM AVERAGE	=	8.79	8.79

**No utilization
E = Estimated

1009 SHOSHO ANT EXCL 2 AUG 20/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	322.00	16.1		14				
6	*OPPO	39.00	1.95		4				
	PER GRASS	35.10	1.75		19	21.61	1.14	0.62	103.76
3	AGSM	9.70	.485	25.1	19	16.02	0.84	1.65	76.923
3	BOGR	15.30	.765	39.5	7	3.23	0.46	0.21	15.509
3	POSE	6.60	.330	17.1	8	1.95	0.24	0.30	9.3633
3	STCO	3.50	.175	9.04	2	0.41	0.20	0.12	1.9687
	PER FORBS	3.00	0.15		1	0.73	0.73	0.24	3.51
2	SPCO	3.00	.150	7.75	1				
	ANN FORBS	0.60	0.03		4	0.00	0.00	0.00	0.00
4	PLSP	0.60	3.00E-02	1.55	4				
	TOTAL		19.98	100.00		22.340			107.27

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	175.97
OPPO	25.15
PHHO	2.35
Shrub Prod.	203.49
Total	310.74

PRECIPITATION DATA

RAIN GUAGE NO.	SHOSHO ANT	EXCL 2 AUG 20/74
OCT. 15 TO APR. 15 =	2.27	2.27
APR. 15 TO JULY 1 =	1.27	1.27
JULY 1 TO SEPT. 1 =	1.07	1.07
SEPT. 1 TO OCT. 15 =	E .85	E.85
SEASON TOTAL =	2.46	5.46
LONG TERM AVERAGE =	8.79	8.79

Utilization	19.23
Production adjusted	329.97

**Production adjusted for utilization
E = Estimated

1011 SHOSHO ANT NO EXCL 4 AUG 21/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	147.00	7.35		7				
6	*OPPO	40.00	2.00		8				
6	*PHHO	1.50	7.50E-02		1				
	PER GRASS	58.50	2.92		17	38.78	2.28	0.66	186.21
3	AGSM	3.60	.180	5.91	10	6.02	0.60	1.67	28.906
3	BOGR	46.30	2.31	76.0	17	21.66	1.27	0.47	104.00
3	POSE	2.60	.130	4.27	6	1.35	0.22	0.52	6.4823
3	STCO	6.00	.300	9.85	6	9.75	1.62	1.62	46.817
	ANN FORBS	2.40	0.12		5	0.94	0.19	0.39	4.51
4	PLPA	2.40	.120	3.94	5				
	TOTAL		12.47	100.00		39.720			190.72

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	122.35
OPPO	28.61
Shrub Prod.	150.96
Total	341.68

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT NO EXCL 4 AUG 21/74
OCT. 15 TO APR. 15 = 1.89
APR. 15 TO JULY 1 = 1.30
JULY 1 TO SEPT. 1 = .96
SEPT. 1 TO OCT. 15 = .91
SEASON TOTAL = 5.06
LONG TERM AVERAGE = 8.18

Utilization	7.02
Production adjusted	348.70

**Production adjusted for utilization

```
         1011   SHOSHO ANT SO EXCL 4 AUG    21/74  INSIDE NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.    TOTAL  AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT    WGT.   WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.   GMS/20 /PLOT   BASAL  AC.
               AREA   BASAL           BASE    SQ.FT. OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

  6   *ARTR    298.00 14.9              10
  6   *OPPO     78.00 3.90               5
  6   *PHHO      0.30 1.50E-02           1
 PER GRASS      23.80  1.19             13     15.84   1.22   0.67  76.06
  3   AGSM       9.00 .450       31.8   13      9.31   0.72   1.03  44.704
  3   BOGR      12.60 .630       44.5   11      5.27   0.48   0.42  25.305
  3   POSE       1.70 8.50E-02 6.01      7      0.97   0.14   0.57  4.6576
  3   SPCR       0.50 2.50E-02 1.77      2      0.29   0.14   0.58  1.3925
  PER FORBS      4.00  0.20              2      0.24   0.12   0.06   1.15
  2   SPCO       4.00 .200       14.1    2
  ANN FORBS      0.50  0.02              5      0.06   0.01   0.12   0.29
  4   PLPA       0.50 2.50E-02 1.77      5
    TOTAL             20.23    100.00          16.140                77.499

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		122.35
OPPO		28.61
	Shrub Prod.	150.96
	Total	228.459

```
PRECIPITATION DATA
 RAIN GUAGE NO.          SHOSHO ANT SO EXCL 4 AUG    21/74
OCT. 15 TO APR. 15 = 1.89
APR. 15 TO JULY 1  = 1.30
JULY 1 TO SEPT. 1  =  .96
SEPT. 1 TO OCT. 15 =  .91
SEASON TOTAL       = 5.06
LONG TERM AVERAGE  = 8.18
```

Utilization	4.24
Production adjusted	232.69

**Production adjusted for utilization

1011 SHOSHO ANT EXCL 4 AUG 21/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	110.00	5.50		3				
6	*OPPO	24.00	1.20		3				
PER GRASS		63.10	3.15		20	47.44	2.37	0.75	227.79
3	BOGR	44.50	2.22	64.8	20	30.99	1.55	0.70	148.80
3	POSE	3.20	.160	4.66	6	1.83	0.30	0.57	8.7871
3	STCO	15.40	.770	22.4	10	14.62	1.46	0.95	70.201
PER FORBS		4.50	0.22		3	1.01	0.34	0.22	4.85
2	SPCO	4.50	.225	6.55	3				
ANN GRASS		0.20	0.01		1	0.01	0.01	0.05	0.05
5	FEOC	0.20	T	.291	1				
ANN FORBS		0.90	0.04		7	0.44	0.06	0.49	2.11
4	PLPA	0.90	4.50E-02	1.31	7				
TOTAL			10.13	100.00		48.900			234.80

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	97.57
OPPO	18.91
Shrub Prod	116.48
Total	351.28

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT EXCL 4 AUG 21/74
OCT. 15 TO APR. 15 = 1.89
APR. 15 TO JULY 1 = 1.30
JULY 1 TO SEPT. 1 = .96
SEPT. 1 TO OCT. 15 = .91
SEASON TOTAL = 5.06
LONG TERM AVERAGE = 8.18

Utilization	28.08
Production adjusted	379.36

**Production adjusted for utilization

1003 SHOSHO ANT NO EXCL 7 AUG 20/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	203.00	10.1		10				
6	*OPPO	7.00	.350		3				
6	*PHHO	1.00	5.00E-02		1				
	PER GRASS	45.40	2.27		19	25.23	1.33	0.56	121.15
3	AGSM	10.70	.535	22.0	19	16.96	0.89	1.59	81.437
3	BOCR	27.50	1.38	56.6	6	4.41	0.73	0.16	21.175
3	POSE	2.00	.100	4.12	6	1.03	0.17	0.51	4.9457
3	SIHY	0.30	1.50E-02	.617	1	0.39	0.39	1.30	1.8727
	ANN FORBS	3.20	0.16		11	1.46	0.13	0.46	7.01
4	PLPA	3.20	.160	6.58	11				
3	STCO	4.90	.245	10.1	5	2.44	0.49	0.50	11.716
	TOTAL		12.98	100.00		26.690			128.16

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	246.77
OPPO	16.89
PHHO	23.47
Shrub Prod.	287.13
Total	415.29

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT NC EXCL 7 AUG 20/74
OCT. 15 TO APR. 15 = 2.12
APR. 15 TO JULY 1 = 1.25
JULY 1 TO SEPT. 1 = 1.12
SEPT. 1 TO OCT. 15 = .82
SEASON TOTAL = 5.31
LONG TERM AVERAGE = 8.84

**No utilization

1003 SHOSHO ANT SO EXCL 7 AUG 20/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	211.20	10.6		10				
6	*OPPO	15.00	.750		4				
6	*PHHO	10.00	.500		2				
	PER GRASS	44.80	2.24		15	23.26	1.55	0.52	111.69
3	AGSM	11.90	.595	25.4	15	10.06	0.67	0.85	48.305
3	BOGR	20.30	1.01	43.3	7	4.17	0.60	0.21	20.023
3	POSE	4.40	.220	9.38	10	2.64	0.26	0.60	12.676
3	SIHY	0.50	2.50E-02	1.07	1	0.26	0.26	0.52	1.2484
	ANN FORBS	2.10	0.10		7	0.74	0.11	0.35	3.55
4	PLPA	2.10	.105	4.48	7				
3	STCO	7.70	.385	16.4	9	6.13	0.68	0.80	29.434
	TOTAL		14.15	100.00		24.000			115.24

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	246.77
OPPO	16.89
PHHO	23.47
Shrub Prod.	287.13
Total	402.37

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT SO EXCL 7 AUG 20/74
OCT. 15 TO APR. 15 = 2.12
APR. 15 TO JULY 1 = 1.25
JULY 1 TO SEPT. 1 = 1.12
SEPT. 1 TO OCT. 15 = .82
SEASON TOTAL = 5.31
LONG TERM AVERAGE = 8.84

**No utilization

1013 SHOSHO ANT EXCL 7 AUG 20/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	323.00	16.1		16				
6	*OPPO	39.00	1.95		5				
6	*PHHO	1.50	7.50E-02		1				
	PER GRASS	24.10	1.20		20	23.51	1.18	0.98	112.89
3	AGSM	9.00	.450	32.0	20	15.62	0.78	1.74	75.002
3	BOGR	4.70	.235	16.7	5	3.40	0.68	0.72	16.326
3	POSE	7.50	.375	26.7	14	2.78	0.20	0.37	13.349
3	STCO	2.90	.145	10.3	4	1.71	0.43	0.59	8.2109
	PER FORBS	1.60	0.08		3	0.34	0.11	0.21	1.63
2	SPCO	1.60	8.00E-02	5.69	3				
	ANN FORBS	2.40	0.12		14	0.61	0.04	0.25	2.93
4	PLPA	2.40	.120	8.54	14				
	TOTAL		19.58	100.00		24.460			117.45

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	259.09
OPPO	25.15
PHHO	6.86
Shrub Prod.	291.10
Total	408.55

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT EXCL 7 AUG 20/74
OCT. 15 TO APR. 15 = 2.12
APR. 15 TO JULY 1 = 1.25
JULY 1 TO SEPT. 1 = 1.12
SEPT. 1 TO OCT. 15 = .82
SEASON TOTAL = 5.31
LONG TERM AVERAGE = 8.84

Utilization	31.64
Production adjusted	440.19

**Production adjusted for utilization

1014 SHOSHO ANT NO EXCL 8 AUG 21/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	195.00	9.75		7				
6	*OPPO	51.00	2.55		6				
	PER GRASS	34.70	1.73		19	28.17	1.48	0.81	135.26
3	AGSM	16.90	.845	48.7	19	20.03	1.05	1.19	96.178
3	BOGR	15.30	.765	44.1	11	6.44	0.59	0.42	30.923
3	POSE	1.70	8.50E-02	4.90	8	0.90	0.11	0.53	4.3215
3	STCO	0.80	4.00E-02	2.31	3	0.80	0.27	1.00	3.8414
	TOTAL		14.03	100.00		28.170			135.26

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	78.53
OPPO	33.57
PHHO	.19
Shrub Prod.	112.29
Total	247.55

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT NO EXCL 8 AUG 21/74
OCT. 15 TO APR. 15 = 1.97
APR. 15 TO JULY 1 = 1.07
JULY 1 TO SEPT. 1 = 1.31
SEPT. 1 TO OCT. 15 = .78
SEASON TOTAL = 5.13
LONG TERM AVERAGE = 8.21

**No utilization

1014 SHOSHO ANT SO EXCL 8 AUG 21/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	101.00	5.05		6				
6	*OPPO	8.00	.400		3				
	PER GRASS	49.60	2.48		17	46.65	2.74	0.94	224.00
3	AGSM	8.50	.425	17.1	12	16.77	1.40	1.97	80.524
3	BOGR	18.40	.920	37.1	10	8.09	0.81	0.44	38.846
3	POSE	3.50	.175	7.06	14	2.65	0.19	0.76	12.724
3	SPCR	0.70	3.50E-02	1.41	1	0.88	0.88	1.26	4.2255
3	STCO	18.50	.925	37.3	17	18.26	1.07	0.99	87.679
	TOTAL		7.93	100.00		46.650			224.00

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	78.53
OPPO	33.57
PHHO	.19
Shrub Prod.	112.29
Total	336.29

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT SO EXCL 8 AUG 21/74
OCT. 15 TO APR. 15 = 1.97
APR. 15 TO JULY 1 = 1.07
JULY 1 TO SEPT. 1 = 1.31
SEPT. 1 TO OCT. 15 = .78
SEASON TOTAL = 5.13
LONG TERM AVERAGE = 8.21

**No utilization

1014 SHOSHO ANT EXCL 8 AUG 21/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	145.00	7.25		8				
6	*OPPO	12.00	.600		1				
6	*PHHO	2.00	.100		1				
PER GRASS		31.70	1.58		20	31.89	1.59	1.01	153.13
3	AGSM	14.40	.720	45.4	20	21.30	1.06	1.48	102.28
3	BOGR	10.30	.515	32.5	8	6.43	0.80	0.62	30.875
3	POSE	5.20	.260	16.4	13	2.31	0.18	0.44	11.092
3	STCO	1.80	9.00E-02	5.68	4	1.85	0.46	1.03	8.8831
	TOTAL		9.53	100.00		31.890			153.13

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	187.97
OPPO	36.06
PHHO	3.73
Shrub Prod.	227.76
Total	380.89

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT EXCL 8 AUG 21/74
OCT. 15 TO APR. 15 = 1.97
APR. 15 TO JULY 1 = 1.07
JULY 1 TO SEPT. 1 = 1.31
SEPT. 1 TO OCT. 15 = .78
SEASON TOTAL = 5.13
LONG TERM AVERAGE = 8.21

Utilization 2.66

**Production adjusted for utilization — Production adjusted 311.64

1015 SHOSHO ANT SO EXCL 9 AUG 21/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	390.00	19.5		12				
6	*OPPO	71.00	3.55		5				
PER GRASS		23.30	1.16		15	18.91	1.26	0.81	90.80
3	AGSM	7.50	.375	25.1	15	7.46	0.50	0.99	35.821
3	BOGR	6.10	.305	20.4	6	3.40	0.57	0.56	16.326
3	POSE	3.60	.180	12.0	7	1.43	0.20	0.40	6.8664
3	STCO	6.10	.305	20.4	4	6.62	1.65	1.09	31.787
PER FORBS		5.00	0.25		3	0.62	0.21	0.12	2.98
2	SPCO	5.00	.250	16.7	3				
ANN FORBS		1.60	0.08		8	0.68	0.08	0.42	3.27
4	PLPA	1.60	8.00E-02	5.35	8				
TOTAL			24.54	100.00		20.210			97.042

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	154.99
OPPO	14.40
PHHO	9.65
Shrub Prod.	179.04
Total	276.082

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT SO EXCL 9 AUG 21/74
OCT. 15 TO APR. 15 = 1.93
APR. 15 TO JULY 1 = 1.29
JULY 1 TO SEPT. 1 = 1.55
SEPT. 1 TO OCT. 15 = .88
SEASON TOTAL = 5.65
LONG TERM AVERAGE = 8.34

**No utilization

1015 SHOSHO ANT NO EXCL 9 AUG 21/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	154.20	7.71		11				
6	*OPPO	45.00	2.25		6				
	PER GRASS	43.10	2.15		18	26.61	1.48	0.62	127.77
3	AGSM	9.00	.450	19.9	18	12.10	0.67	1.34	58.100
3	BOGR	26.50	1.32	58.5	8	8.75	1.09	0.33	42.015
3	CAEL	1.30	6.50E-02	2.87	4	0.68	0.17	0.52	3.2652
3	POSE	3.00	.150	6.62	7	1.78	0.25	0.59	8.5470
3	STCO	3.30	.165	7.28	3	3.30	1.10	1.00	15.846
	ANN FORBS	2.20	0.11		12	1.04	0.09	0.47	4.99
4	PLPA	2.20	.110	4.86	12				
	TOTAL		12.22	100.00		27.650			132.77

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	154.99
OPPO	14.40
PHHO	9.65
Shrub Prod.	179.04
Total	311.81

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT NO EXCL 9 AUG 21/74
OCT. 15 TO APR. 15 = 1.93
APR. 15 TO JULY 1 = 1.29
JULY 1 TO SEPT. 1 = 1.55
SEPT. 1 TO OCT. 15 = .88
SEASON TOTAL = 5.65
LONG TERM AVERAGE = 8.34

Utilization	2.91
Production adjusted	314.72

**Production adjusted for utilization

```
         1015    SHOSHO ANT    EXCL 9 AUG    21/74  OUT    NATIVE

                           NUMBER PLOTS = 20
                             PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/20  /PLOT   BASAL  AC.
               AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

  6   *ARTR   300.50 15.0               16
  6   *OPPO     7.00 .350                2
   PER GRASS   23.20  1.16              19     16.65   0.88   0.72  79.95
  3    AGSM     9.20 .460      30.4     19      9.21   0.48   1.00  44.224
  3    BOGR     5.40 .270      17.8      6      3.37   0.56   0.62  16.182
  3    POSE     7.90 .395      26.1     13      3.16   0.24   0.40  15.173
  3    STCO     0.70 3.50E-02 2.31       2      0.91   0.45   1.30  4.3695
   ANN FORBS    7.10  0.35              16      3.69   0.23   0.52  17.72
  4    PLPA     7.10 .355      23.4     16
     TOTAL           16.89    100.C0          20.340                97.666

          * NOT COMPUTED IN PERCENT CCMPOSITION
          T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

  ARTR                                                        108.86
  OPPO                                                         28.51
  PHHO                                                          5.57
                                                Shrub Prod.   142.94

                                                      Total   240.6060

PRECIPITATION DATA
 RAIN GUAGE NO.          SHOSHO ANT    EXCL 9 AUG    21/74
OCT. 15 TO APR. 15 = 1.93
APR. 15 TO JULY 1  = 1.29
JULY 1 TO SEPT. 1  = 1.55
SEPT. 1 TO OCT. 15 =  .88
SEASON TOTAL       = 5.65
LONG TERM AVERAGE  = 8.34

                                                Utilization    5.29

  **Production adjusted for utilization    Production adjusted 245.90
```

1017 SHOSHO ANT NO EXCL11 AUG 22/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	58.00	2.90		6				
6	*OPPO	11.00	.550		2				
	PER GRASS	22.40	1.12		18	18.47	1.03	0.82	88.69
3	AGSM	11.70	.585	40.3	18	14.56	0.81	1.24	69.913
3	BOGR	8.00	.400	27.6	5	2.80	0.56	0.35	13.445
3	POSE	2.50	.125	8.62	7	1.08	0.15	0.43	5.1858
3	STCO	0.20	T	.690	1	0.03	0.03	0.15	.14405
	PER FORBS	5.90	0.29		7	0.51	0.07	0.09	2.45
2	SPCO	5.90	.295	20.3	7				
	ANN FORBS	0.70	0.03		7	0.13	0.02	0.19	0.62
4	PLPA	0.70	3.50E-02	2.41	7				
	TOTAL		4.90	100.00		19.110			91.760

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	128.54
OPPO	28.66
PHHO	20.16
Shrub Prod.	177.36
Total	269.12

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT NC EXCL11 AUG 22/74
OCT. 15 TO APR. 15 = 1.94
APR. 15 TO JULY 1 = 1.08
JULY 1 TO SEPT. 1 = 1.02
SEPT. 1 TO OCT. 15 = .64
SEASON TOTAL = 4.68
LONG TERM AVERAGE = 8.39

**No utilization

```
        1017   SHOSHO ANT SO EXCL11 AUG    22/74  INSIDE NATIVE

                            NUMBER PLOTS = 20
                              PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL  AVE.   WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/20 /PLOT  BASAL  AC.
               AREA   BASAL           BASE   SQ.FT. OCCUR- AREA
               PER-   AREA            20            RENCES
               CENT

 6   *ARTR    194.00 9.70                7
 6   *OPPO     39.00 1.95                7
  PER GRASS    40.50  2.02              16     20.11   1.26  0.50   96.56
 3   AGSM       4.00 .200       7.94    10      5.52   0.55  1.38   26.505
 3   BOGR      28.30 1.41       56.2    13      9.39   0.72  0.33   45.088
 3   POSE       5.60 .280       11.1    16      3.19   0.20  0.57   15.317
 3   STCO       2.60 .130       5.16     7      2.01   0.29  0.77   9.6514
  PER FORBS     5.20  0.26               4      0.69   0.17  0.13    3.31
 2   SPCO       5.20 .260       10.3     4
  ANN GRASS     0.40  0.02               3      0.08   0.03  0.20    0.38
 5   FEOC       0.40 2.00E-02 .794       3
  ANN FORBS     4.30  0.21              12      1.48   0.12  0.34    7.11
 4   PLPA       4.30 .215       8.53    12
   TOTAL            14.17     100.00          22.360                107.37

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR	128.54
OPPO	28.66
PHHO	20.16
Shrub Prod.	177.36
Total	284.73

```
PRECIPITATION DATA
 RAIN GUAGE NO.        SHOSHO ANT SO EXCL11 AUG    22/74
OCT. 15 TO APR. 15 = 1.94
APR. 15 TO JULY 1  = 1.08
JULY 1 TO SEPT. 1  = 1.02
SEPT. 1 TO OCT. 15 =  .64
SEASON TOTAL       = 1.68
LONG TERM AVERAGE  = 8.37
```

**No utilization

1017 SHOSHO ANT EXCL11 AUG 22/74 OUT NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	203.50	10.2		12				
6	*ARSP	2.00	.100		1				
6	*OPPO	93.00	4.65		3				
PER GRASS		38.40	1.92		19	26.05	1.37	0.68	125.08
3	AGSM	9.40	.470	18.4	19	16.29	0.86	1.73	78.220
3	BOGR	21.50	1.07	42.2	10	6.03	0.60	0.28	28.954
3	POSE	7.50	.375	14.7	17	3.73	0.22	0.50	17.910
PER FORBS		2.50	0.12		2	0.38	0.19	0.15	1.82
2	SPCO	2.50	.125	4.90	2				
ANN FORBS		10.10	0.50		15	3.11	0.21	0.31	14.93
4	PLPA	10.10	.505	19.8	15				
TOTAL			17.47	100.00		29.540			141.84

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	121.92
OPPO	48.14
PHHO	1.49
Shrub Prod.	171.55
Total	313.59

PRECIPITATION DATA
RAIN GUAGE NO. SHOSHO ANT EXCL11 AUG 22/74

OCT. 15 TO APR. 15 = 1.94
APR. 15 TO JULY 1 = 1.08
JULY 1 TO SEPT. 1 = 1.02
SEPT. 1 TO OCT. 15 = .64
SEASON TOTAL = 4.68
LONG TERM AVERAGE = 8.39

Utilization	3.91
Production adjusted	317.30

**Production adjusted for utilization

2009 SMILO EXCL JULY 23/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	108.00	5.40		5				
6	*OPPO	15.00	.750		1				
	PER GRASS	15.10	0.75		16	27.76	1.73	1.84	133.29
3	AGSM	7.20	.360	36.7	15	15.73	1.05	2.18	75.531
3	BOGR	0.20	T	1.02	1	0.48	0.48	2.40	2.3048
3	POSE	6.10	.305	31.1	16	6.53	0.41	1.07	31.355
3	SIHY	1.60	8.00E-02	8.16	3	5.02	1.67	3.14	24.104
	ANN GRASS	4.00	0.20		12	4.51	0.38	1.13	21.66
5	BRTE	1.60	8.00E-02	8.16	12				
5	FEOC	2.40	.120	12.2	11				
	ANN FORBS	0.50	0.02		3	0.05	0.02	0.10	0.24
4	PLSP	0.50	2.50E-02	2.55	3				
	TOTAL		7.13	100.00		32.320			155.19

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	134.16
OPPO	14.83
Shrub Prod.	148.99
Total	304.18

PRECIPITATION DATA
RAIN GUAGE NO. SMILO EXCL JULY 23/74
OCT. 15 TO APR. 15 = 3.40
APR. 15 TO JULY 1 = .95
JULY 1 TO SEPT. 1 = 1.54
SEPT. 1 TO OCT. 15 = .50
SEASON TOTAL = 6.39
LONG TERM AVERAGE = 8.20

**No utilization

```
2009   SMILO  EXCL          JULY   23/74  OUT    NATIVE

                    NUMBER PLOTS = 20
                       PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.   TOTAL   AVE.    WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT   WGT.    WGT.    UNIT   PER
               BASAL  CENT   SITION   FREQ.  GMS/20  /PLOT   BASAL  AC.
               AREA   BASAL           BASE   SQ.FT.  OCCUR-  AREA
               PER-   AREA            20             RENCES
               CENT

 6   *ARTR    263.00 13.1               10
 6   *OPPC     42.00 2.10                2
  PER GRASS    13.40  0.67              17    17.73    1.04   1.32   85.13
 3   AGSM       0.80 4.00E-02 4.82       6     1.29    0.21   1.61   6.1942
 3   BOGR       0.20 T        1.20       1     0.32    0.32   1.60   1.5365
 3   POSE       9.50 .475     57.2      17    11.40    0.67   1.20   54.739
 3   SIHY       1.20 6.00E-02 7.23       4     3.11    0.78   2.59   14.933
 3   STCO       1.70 8.50E-02 10.2       2     1.61    0.80   0.95   7.7307
  ANN GRASS     2.60  0.13              14     2.90    0.21   1.12   13.92
 5   BRTE       1.50 7.50E-02 9.04      14
 5   FEOC       1.10 5.50E-02 6.63       7
  ANN FORBS     0.60  0.03               4     0.32    0.08   0.53    1.54
 4   PLSP       0.50 2.50E-02 3.01       4
 4   SAKA       0.10 T        .602       1
   TOTAL            16.08   100.00            20.950                 100.60

     * NOT COMPUTED IN PERCENT COMPOSITION
     T - TRACE
```

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	91.49
OPPO	31.29
PHHO	1.73
Shrub Prod.	124.51
Total	225.11

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PRECIPITATION DATA
 RAIN GUAGE NO.         SMILO  EXCL          JULY   23/74
OCT. 15 TO APR. 15 =  3.40
APR. 15 TO JULY 1  =   .95
JULY 1 TO SEPT. 1  =  1.54
SEPT. 1 TO OCT. 15 =   .50
SEASON TOTAL       =  6.39
LONG TERM AVERAGE  =  8.20
```

Utilization	2.14
Production adjusted	227.25

**Production adjusted for utilization

```
        2009   SMILO  EXCL          JULY   23/74  INSIDE SPRAY

                            NUMBER PLOTS = 20
                              PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.    PERCENT  ABS.    TOTAL  AVE.    WGT./   LBS
CODE    NAME     TRANS   PER-    COMPO-   PLOT    WGT.   WGT.    UNIT    PER
                 BASAL   CENT    SITION   FREQ.   GMS/20 /PLOT   BASAL   AC.
          *      AREA    BASAL            BASE    SQ.FT. OCCUR-  AREA
                 PER-    AREA             20             RENCES
                 CENT

 6    *ARTR     55.00 2.75                 3
  PER GRASS     18.10  0.90                6      32.91    5.48   1.82 158.02
 3    AGSM       0.70 3.50E-02 1.48        4       1.04    0.26   1.49   4.9938
 3    BOGR       0.50 2.50E-02 1.06        3       0.34    0.11   0.68   1.6326
 3    POSE       1.10 5.50E-02 2.33        6       1.03    0.17   0.94   4.9457
 3    SIHY       0.80 4.00E-02 1.69        3       1.68    0.56   2.10   8.0668
 3    STCO      15.00 .750     31.8        4      28.82    7.20   1.92   138.38
  ANN GRASS     29.00  1.45               20      51.15    2.56   1.76 245.61
 5    BRTE      28.20 1.41     59.7       20
 5    FEOC       0.80 4.00E-02 1.69        4
  ANN FORBS      0.10  0.00                1       0.04    0.04   0.40    0.19
 4    PLSP       0.10 T        .212        1
     TOTAL            5.11    100.00              84.100                  403.82

     * NCT COMPUTED IN PERCENT COMPOSITION
     T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR 8.54

OPPO 16.03

Shrub Prod. 24.57

Total 428.39

```
PRECIPITATION DATA
 RAIN GUAGE NO.          SMILO  EXCL          JULY   23/74
OCT. 15 TO APR. 15 = 3.40
APR. 15 TO JULY 1  =  .95
JULY 1 TO SEPT. 1  = 1.54
SEPT. 1 TO OCT. 15 =  .50
SEASON TOTAL       = 6.39
LONG TERM AVERAGE  = 8.20
```

**No utilization

2009 SMILO EXCL JULY 23/74 OUT SPRAY

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	50.00	2.50		4				
	PER GRASS	9.60	0.48		11	16.61	1.51	1.73	79.76
3	AGSM	3.80	.190	12.6	10	10.85	1.08	2.86	52.098
3	POSE	4.80	.240	15.9	11	3.88	0.35	0.81	18.631
3	SIHY	0.30	1.50E-02	.993	1	0.67	0.67	2.23	3.2171
3	STCO	0.70	3.50E-02	2.32	1	1.21	1.21	1.73	5.8100
	ANN GRASS	18.90	0.94		20	39.02	1.95	2.06	187.36
5	BRTE	12.80	.640	42.4	20				
5	FEOC	6.10	.305	20.2	19				
	ANN FORBS	1.70	0.08		9	1.14	0.13	0.67	5.47
4	LARE	0.10	T	.331	1				
4	PLSP	1.30	6.50E-02	4.30	9				
4	SAKA	0.30	1.50E-02	.993	3				
	TOTAL		4.01	100.00		56.770			272.59

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	31.73
OPPO	18.29
Shrub Prod.	50.02
Total	322.610

PRECIPITATION DATA
RAIN GUAGE NO. SMILO EXCL JULY 23/74
OCT. 15 TO APR. 15 = 3.40
APR. 15 TO JULY 1 = .95
JULY 1 TO SEPT. 1 = 1.54
SEPT. 1 TO OCT. 15 = .50
SEASON TOTAL = 6.39
LONG TERM AVERAGE = 8.20

Utilization 5.79

**Production adjusted for utilization

Production adjusted 328.40

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09 42    DEC 05  RUNUSBA...
             1005    SWEET   WATER   EXCL    JULY    25/74   INSIDE ARNO

                                  NUMBER PLOTS = 20
                                    PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.     TOTAL    AVE.     WGT./    LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT     WGT.     WGT.     UNIT     PER
                BASAL   CENT    SITION   FREQ.    GMS/20   /PLOT    BASAL    AC.
                AREA    BASAL            BASE     SQ.FT.   OCCUR-   AREA
                PER-    AREA             20                RENCES
                CENT

  6    *ARHO     1.00 5.00E-02              1
  6    *ARNO   153.00 7.65                  7
  6    *ARTR     3.00 .150                  1
  6    *CHVI    17.00 .850                  2
  6    *PHHO    28.00 1.40                  4
  6    *TECA    37.00 1.85                  5
   PER GRASS    20.20  1.01                11      26.09     2.37    1.29 125.28
  3    AGSM      3.10 .155       4.04      10       3.25     0.32    1.05  15.606
  3    CAFI      8.40 .420       10.9       9       7.27     0.81    0.87  34.908
  3    KOCR      4.10 .205       5.34       8       7.55     0.94    1.84  36.253
  3    POSE      1.50 7.50E-02 1.95         3       1.26     0.42    0.84  6.0501
  3    STCO      3.10 .155       4.04      11       6.76     0.61    2.18  32.459
   PER FORBS    56.60  2.83                16      26.18     1.64    0.46 125.71
  2    ASSP      1.00 5.00E-02 1.30         1
  2    AST      16.00 .800       20.8       2
  2    COPA     38.60 1.93       50.3      16
  2    LEAL      1.00 5.00E-02 1.30         1
     TOTAL            15.79    100.00              52.270                   250.98

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
    ARNO                                                                  194.49
    TECA                                                                    8.40
    ARTR                                                                   11.76
    CHUI                                                                     .34
    CHNA                                                                    1.01
    LEPU                                                                    1.29
    ARFR                                                                     .58
                                                          Shrub Prod.     217.87

                                                                Total     468.85

PRECIPITATION DATA
 RAIN GUAGE NO.         SWEET   WATER   EXCL    JULY    25/74
OCT. 15 TO APR. 15 = 1.63
APR. 15 TO JULY 1  = 1.78
JULY 1 TO SEPT. 1  = 2.08
SEPT. 1 TO OCT. 15 =  .56
SEASON TOTAL       = 6.05
LONG TERM AVERAGE  = 8.36
```

**No utilization

```
            1005   SWEET  WATER  EXCL    JULY   25/74  OUT    ARNO

                                  NUMBER PLCTS = 20
                                    PLCT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.    PERCENT  ABS.    TCTAL   AVE.     WGT./   LBS
CODE   NAME    TRANS  PER-    COMPO-   PLOT    WGT.    WGT.     UNIT    PER
               BASAL  CENT    SITICN   FREQ.   GMS/20  /PLOT    BASAL   AC.
               AREA   BASAL            BASE    SG.FT.  OCCUR-   AREA
               PER-   AREA             20              RENCES
               CENT

  6   *ARNO   235.00 11.8                 7
  6   *ARTR     1.00 5.00E-02             1
  6   *CHVI    24.00 1.20                 4
  6   *OPPO     2.00 .100                 1
  6   *TECA     2.00 .100                 1
   PER GRASS   48.40  2.42               17     39.61    2.33    0.82 190.20
  3    AGSM     0.60 3.00E-02 .889        4      1.00    0.25    1.67  4.8017
  3    CAEL     1.70 8.50E-02 2.52        7      1.01    0.14    0.59  4.8497
  3    CAFI     3.10 .155     4.59        2      0.91    0.45    0.29  4.3695
  3    KOCR     3.90 .195     5.78        7      4.54    0.65    1.16  21.800
  3    ORHY     2.30 .115     3.41        2      4.27    2.13    1.86  20.503
  3    POSE     0.50 2.50E-02 .741        3      0.82    0.27    1.64  3.9374
  3    STCO    36.30 1.81     53.8       17     27.06    1.59    0.75  129.93
   PER FORBS   19.10  0.95                8     18.82    2.35    0.99  90.37
  2    ASSP     8.00 .400     11.9        3
  2    COPA     0.60 3.00E-02 .889        3
  2    CRP      5.20 .260     7.70        5
  2    PSTE     5.30 .265     7.85        8
    TOTAL            16.57   100.00            58.430                 280.56

       * NOT COMPUTED IN PERCENT CCMPOSITICN
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOCDY MAT FORM PLANTS
```

ARNO	147.94
TECA	7.54
CHUI	3.17
CHNA	8.88
ARTR	55.34
LEPU	4.18
Shrub Prod.	227.05
Total	507.61

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PRECIPITATION DATA
 RAIN GUACE NO.          SWEET  WATER  EXCL   JULY   25/74
OCT. 15 TO APR. 15 = 1.63
APR. 15 TO JULY 1  = 1.78
JULY 1 TO SEPT. 1  = 2.08
SEPT. 1 TO OCT. 15 =  .56
SEASON TOTAL       = 6.05
LONG TERM AVERAGE  = 8.36
```

**No utilization

1005 SWEET WATER EXCL JULY 25/74 INSIDE ARTR

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PERCENT	AVE. PERCENT BASAL AREA	PERCENT COMPOSITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCURRENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARHO	13.00	.650		2				
6	*ARTR	115.00	5.75		7				
6	*CHVI	7.00	.350		2				
6	*EROV	2.00	.100		1				
6	*LEPU	3.00	.150		1				
6	*PHHO	24.00	1.20		3				
	PER GRASS	40.40	2.02		18	82.91	4.61	2.05	398.11
3	AGSM	5.20	.260	10.9	18	10.56	0.59	2.03	50.706
3	CAEL	1.40	7.00E-02	2.94	9	3.40	0.38	2.43	16.326
3	CAFI	8.90	.445	18.7	12	10.89	0.91	1.22	52.290
3	KOCR	15.60	.780	32.8	15	34.49	2.30	2.21	165.61
3	POSE	0.70	3.50E-02	1.47	5	0.49	0.10	0.70	2.3528
3	STCO	8.60	.430	18.1	13	23.08	1.78	2.68	110.82
	PER FORBS	7.20	0.36		3	3.00	1.00	0.42	14.41
2	ASSP	7.20	.360	15.1	3				
	TOTAL		10.58	100.00		85.910			412.51

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	164.35
PHHO	16.27
CHUI	7.20
ARHO(1)	5.18
TECA	1.92
Shrub Prod.	194.92
Total	607.43

PRECIPITATION DATA
RAIN GUAGE NO. SWEET WATER EXCL JULY 25/74
OCT. 15 TO APR. 15 = 1.63
APR. 15 TO JULY 1 = 1.78
JULY 1 TO SEPT. 1 = 2.08
SEPT. 1 TO OCT. 15 = .56
SEASON TOTAL = 6.05
LONG TERM AVERAGE = 8.36

**No utilization

1005 SWEET WATER EXCL JULY 25/74 OUT ARTR

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	319.00	15.9		6				
6	*CHVI	39.00	1.95		5				
6	*PHHO	11.00	.550		3				
PER GRASS		25.00	1.25		12	45.06	3.75	1.80	216.36
3	AGSM	2.10	.105	3.53	12	3.03	0.25	1.44	14.549
3	CAEL	1.70	8.50E-02	2.86	9	3.44	0.38	2.02	16.518
3	CAFI	6.80	.340	11.4	7	10.72	1.53	1.58	51.474
3	KOCR	3.60	.180	6.05	8	9.08	1.13	2.52	43.599
3	ORHY	0.40	2.00E-02	.672	2	0.87	0.43	2.17	4.1775
3	POSE	1.50	7.50E-02	2.52	8	1.25	0.16	0.83	6.0021
3	STCO	8.90	.445	15.0	12	16.67	1.39	1.87	80.044
PER FORBS		34.50	1.72		9	14.46	1.61	0.42	69.43
2	ASSP	5.00	.250	8.40	2				
2	COPA	2.00	.100	3.36	1				
2	PSTE	27.50	1.38	46.2	9				
TOTAL			21.42	100.00		59.520			285.80

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	102.29
CHUI	9.22
PHHO	5.57
OPPO	2.78
ARNO	19.97
Shrub Prod.	139.83
Total	425.63

PRECIPITATION DATA
RAIN GUAGE NO. SWEET WATER EXCL JULY 25/74
OCT. 15 TO APR. 15 = 1.63
APR. 15 TO JULY 1 = 1.78
JULY 1 TO SEPT. 1 = 2.08
SEPT. 1 TO OCT. 15 = .56
SEASON TOTAL = 6.05
LONG TERM AVERAGE = 8.36

**No utilization

```
09 40    MAR 18  RUNDUAA...
            2010    TWO     MILE     HILL     JULY    17/74  INSIDE NATIVE

                                 NUMBER OF PLOTS
                          COVER = 200, PRODUCTION = 20
                           PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.     TOTAL    AVE.     WGT./    LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT     WGT.     WGT.     UNIT     PER
                 BASAL   CENT    SITION    FREQ.    GMS/     /PLOT    BASAL    AC.
                 AREA    BASAL             BASE     200      OCCUR-   AREA
                 PER-    AREA              200      SQ.FT.   RENCES
                 CENT

  1  ATNU        379.0   1.89       47.5       73   117.95     1.62    0.31   56.636
   PER GRASS     269.1   1.35                 105   441.61     4.21    1.64   212.05
  3  AGCR          5.1   2.55E-02 .639          3     1.17     0.39    0.23   .56180
  3  ORHY          2.4   1.20E-02 .301          3     1.85     0.62    0.77   .88831
  3  POSE         38.4   .192     4.81         59    31.51     0.53    0.82   15.130
  3  SIHY        223.2   1.12     27.9        105   407.08     3.88    1.82   195.47
   PER FORBS      4.30    0.02                  3     2.07     0.69    0.48    0.99
  2  ALTE          0.1   T          1.25E-02    1
  2  MAGR          3.8   1.90E-02 .476          3
  2  OECA          0.4   T          5.01E-02    2
   ANN GRASS    106.90    0.53                156   164.19     1.05    1.54   78.84
  5  BRJA         16.6   8.30E-02 2.08         90
  5  BRTE         90.3   .451       11.3      156
   ANN FORBS     39.30    0.20                153    37.06     0.24    0.94   17.80
  4  CAMI          0.1   T          1.25E-02    1
  4  LARE         35.7   .178       4.47      153
  4  LEDE          2.6   1.30E-02 .326         25
  4  PLSP          0.5   T          6.26E-02    4
  4  UNK           0.4   T          5.01E-02    4
     TOTAL               4.0       100.00          762.880                    366.312

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub production observed

```
PRECIPITATION DATA
 RAIN GUAGE NO.          TWO     MILE     HILL     JULY     17/74
OCT. 15 TO APR. 15 =  4.10
APR. 15 TO JULY 1  =  1.06
JULY 1 TO SEPT. 1  =  1.35
SEPT. 1 TO OCT. 15 = E2.35
SEASON TOTAL       =  8.86
LONG TERM AVERAGE  =  9.36
```

**No utilization

E = Estimated

```
10 09    MAR 18  RUNCVAA...
              2010    TWO     MILE    HILL    JULY    17/74  OUT     NATIVE

                                NUMBER OF PLOTS
                          COVER = 200, PRODUCTION = 20
                           PLOT SIZE 1 FT. X 10 FT.
PLANT   PLANT    TOTAL   AVE.    PERCENT   ABS.    TOTAL   AVE.    WGT./  LBS
CODE    NAME     TRANS   PER-    COMPO-    PLOT    WGT.    WGT.    UNIT   PER
                 BASAL   CENT    SITION    FREQ.   GMS/    /PLOT   BASAL  AC.
                 AREA    BASAL             BASE    200     OCCUR-  AREA
                 PER-    AREA              200     SQ.FT.  RENCES
                 CENT

  1  ATNU     1172.0   5.86       85.9      113    345.49    3.06   0.29  165.89
   PER GRASS    16.1   8.05E-02              64     26.93    0.42   1.67  12.931
  3  ORHY        1.0   T          7.33E-02    1      3.17    3.17   3.17  1.5221
  3  POSE        3.9   1.95E-02 .286         21      3.01    0.14   0.77  1.4453
  3  SIHY       11.2   5.60F-02 .821         64     20.75    0.32   1.85  9.9635
   PER FORBS    4.10    0.02                 16      5.57    0.35   1.36    2.67
  2  MAGR        2.3   1.15E-02 .169          7
  2  OECA        1.8   T        .132         16
   ANN GRASS  149.20    0.75                195    376.76    1.93   2.53 180.91
  5  BRJA      122.5   .612       8.98      195
  5  BRTE       26.7   .133       1.96      134
   ANN FORBS   23.20    0.12                122     18.48    0.15   0.80    8.87
  4  LARE       22.7   .113       1.66      122
  4  LEDE        0.5   T          3.66E-02    5
     TOTAL             6.8      100.00             773.230                371.281

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

No shrub production observed

```
PRECIPITATION DATA
 RAIN GUAGE NO.       TWO     MILE    HILL    JULY    17/74
OCT. 15 TO APR. 15 = 4.10
APR. 15 TO JULY 1  = 1.06
JULY 1 TO SEPT. 1  = 1.35
SEPT. 1 TO OCT. 15 =E2.35
SEASON TOTAL       = 8.86
LONG TERM AVERAGE  = 9.36
```

**No utilization

E = Estimated

1006 UPPER GOVT DRAW AUG 19/74 INSIDE NATIVE

NUMBER PLOTS = 20
PLOT SIZE 1X1

PLANT CODE	PLANT NAME	TOTAL TRANS BASAL AREA PER-CENT	AVE. PER-CENT BASAL AREA	PERCENT COMPO-SITION	ABS. PLOT FREQ. BASE 20	TOTAL WGT. GMS/20 SQ.FT.	AVE. WGT. /PLOT OCCUR-RENCES	WGT./ UNIT BASAL AREA	LBS PER AC.
6	*ARTR	249.00	12.4		11				
6	*CHVI	6.00	.300		1				
6	*PHHO	14.50	.725		6				
	PER GRASS	64.10	3.20		20	47.70	2.38	0.74	229.04
3	AGSM	14.00	.700	19.5	20	21.23	1.06	1.52	101.94
3	KOCR	38.00	1.90	53.0	16	21.32	1.33	0.56	102.37
3	POSE	12.10	.605	16.9	13	5.15	0.40	0.43	24.729
	PER FORBS	0.80	0.04		1	0.04	0.04	0.05	0.19
2	SPCO	0.80	4.00E-02	1.12	1				
	ANN FORBS	6.80	0.34		9	1.97	0.22	0.29	9.46
4	CRE	5.00	.250	6.97	2				
4	PLSP	1.80	9.00E-02	2.51	9				
	TOTAL		17.06	100.00		49.710			238.69

* NOT COMPUTED IN PERCENT COMPOSITION
T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

ARTR	288.72
PHHO	8.06
OPPO	4.42
GUSA	2.69
Shrub Prod.	303.89
Total	542.58

PRECIPITATION DATA
RAIN GUAGE NO. UPPER GOVT DRAW AUG 19/74
OCT. 15 TO APR. 15 = RI
APR. 15 TO JULY 1 =
JULY 1 TO SEPT. 1 =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL =
LONG TERM AVERAGE =

Utilization 86.65
**Production adjusted for utilization Production adjusted 629.23

RI = Record Incomplete

```
              1006    UPPER   GOVT    DRAW    AUG     19/74  OUT     NATIVE

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT    TOTAL   AVE.     PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS
CODE    NAME     TRANS   PER-     COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT     SITION    FREQ.    GMS/20  /PLOT    BASAL   AC.
                 AREA    BASAL              BASE     SQ.FT.  OCCUR-   AREA
                 PER-    AREA               20               RENCES
                 CENT

  6    *ARTR     64.50 3.22                 10
  6    *PHHO     23.00 1.15                  9
   PER GRASS     34.50  1.72                20       19.64    0.98    0.57   94.31
  3     AGSM     10.00 .500         21.7    20       10.06    0.50    1.01   48.305
  3     KOCR      3.50 .175         7.61     4        2.41    0.60    0.69   11.572
  3     POSE     21.00 1.05         45.7    18        7.17    0.40    0.34   34.428
   PER FORBS      2.80  0.14                 2        0.45    0.22    0.16    2.16
  2     ERPU      0.80 4.00E-02 1.74         1
  2     SPCO      2.00 .100         4.35     2
   ANN FORBS      8.70  0.43                17        4.23    0.25    0.49   20.31
  4     PL SP     8.70 .435         18.9    17
     TOTAL             6.67       100.00             24.320                  116.78

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		367.20
PHHO		23.18
OPPO		7.10
	Shrub Prod.	397.48
	Total	514.26

```
PRECIPITATION DATA
 RAIN GUAGE NO.       UPPER   GOVT    DRAW    AUG     19/74
OCT. 15 TO APR. 15 =   RI
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

**No utilization
RI = Record Incomplete

```
12 19   NOV 19  RUNXRAA...
           1006    UPPER   GOVT    DRAW    AUG     19/74   INSIDE SPRAY

                                 NUMBER PLOTS = 20
                                   PLOT SIZE 1X1
PLANT   PLANT   TOTAL   AVE.    PERCENT  ABS.     TOTAL   AVE.     WGT./   LBS
CODE    NAME    TRANS   PER-    COMPO-   PLOT     WGT.    WGT.     UNIT    PER
                BASAL   CENT    SITION   FREQ.    GMS/20  /PLOT    BASAL   AC.
                AREA    BASAL            BASE     SQ.FT.  OCCUR-   AREA
                PER-    AREA             20               RENCES
                CENT

  6    *ARTR    80.00 4.00                  5
  6    *PHHO     8.50 .425                  3
   PER GRASS    44.30  2.21                20     28.95    1.45    0.65 139.01
  3    AGSM     16.90 .845        31.5     20     12.62    0.63    0.75  60.597
  3    KOCR      4.10 .205        7.65      5      2.80    0.56    0.68  13.445
  3    POSE     21.00 1.05        39.2     20     12.36    0.62    0.59  59.349
  3    STCO      2.30 .115        4.29      3      1.17    0.39    0.51  5.6180
   PER FORBS     1.00  0.05                 1      0.12    0.12    0.12   0.58
  2    ERPU      1.00 5.00E-02 1.87         1
   ANN GRASS     0.10  0.00                 1      0.01    0.01    0.10   0.05
  5    BRTE      0.10 T           .187      1
   ANN FORBS     8.20  0.41                14      6.94    0.50    0.85  33.32
  4    GICO      0.30 1.50E-02 .560         1
  4    LARE      0.20 T           .373      1
  4    PLSP      7.70 .385        14.4     14
     TOTAL            7.10      100.00            36.020                 172.96

       * NOT COMPUTED IN PERCENT COMPOSITION
       T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

   ARTR                                                                  16.80
   PHHO                                                                    .24
                                                      Shrub Prod.        17.04
                                                            Total       190.00

PRECIPITATION DATA
 RAIN GUAGE NO.        UPPER   GOVT    DRAW    AUG     19/74
OCT. 15 TO APR. 15 =    RI
APR. 15 TO JULY 1  =
JULY 1 TO SEPT. 1  =
SEPT. 1 TO OCT. 15 =
SEASON TOTAL       =
LONG TERM AVERAGE  =
```

** No Utilization
RI = Record Incomplete

```
            1006   UPPER  GOVT   DRAW   AUG    19/74  OUT    SPRAY

                                NUMBER PLOTS = 20
                                  PLOT SIZE 1X1
PLANT  PLANT   TOTAL  AVE.   PERCENT  ABS.    TOTAL  AVE.   WGT./  LBS
CODE   NAME    TRANS  PER-   COMPO-   PLOT    WGT.   WGT.   UNIT   PER
               BASAL  CENT   SITION   FREQ.   GMS/20 /PLOT  BASAL  AC.
               AREA   BASAL           BASE    SQ.FT. OCCUR- AREA
               PER-   AREA            20             RENCES
               CENT

  6   *ARTR    38.00 1.90                3
  6   *OPPO     6.00 .300                2
   PER GRASS   56.00  2.80              20     55.95   2.80   1.00 268.65
  3    AGSM    17.30 .865       25.3    20     23.45   1.17   1.36  112.60
  3    KOCR    24.40 1.22       35.6    12     19.64   1.64   0.80  94.305
  3    POSE     7.00 .350       10.2    15      7.06   0.47   1.01  33.900
  3    STCO     7.30 .365       10.7     6      5.80   0.97   0.79  27.850
   PER FORBS    5.10  0.25               1      0.00   0.00   0.00   0.00
  2    PEN      0.10 T          .146     1
  2    TROU     5.00 .250       7.30     1
   ANN GRASS    4.50  0.22              16      6.82   0.43   1.52  32.75
  5    BRTE     4.50 .225       6.57    16
   ANN FORBS    2.90  0.14              10      0.84   0.08   0.29   4.03
  4    GARA     0.30 1.50E-02 .438       2
  4    LARE     0.10 T          .146     1
  4    PLSP     2.50 .125       3.65    10
     TOTAL           5.62     100.00          63.610               305.44

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

ARTR		16.80
PHHO		3.02
	Shrub Prod.	19.82
	Total	325.26

```
PRECIPITATION DATA
 RAIN GUAGE NO.        UPPER  GOVT   DRAW   AUG    19/74
OCT. 15 TO APR. 15  =  RI
APR. 15 TO JULY 1   =
JULY 1 TO SEPT. 1   =
SEPT. 1 TO OCT. 15  =
SEASON TOTAL        =
LONG TERM AVERAGE   =
```

Utilization	139.38
Production adjusted	464.64

**Production adjusted for utilization

RI = Record Incomplete

```
10 40    JAN 10  RUN3UPA...
             2006     WEST    PASTUR EXCL    JULY    9/74    INSIDE NATIVE

                                   NUMBER OF PLOTS
                           COVER = 200, PRODUCTION = 20
                            PLOT SIZE 1 FT. X 10 FT.
PLANT    PLANT   TOTAL   AVE.    PERCENT   ABS.     TOTAL   AVE.     WGT./   LBS
CODE     NAME    TRANS   PER-    COMPO-    PLOT     WGT.    WGT.     UNIT    PER
                 BASAL   CENT    SITION    FREQ.    GMS/    /PLOT    BASAL   AC.
                 AREA    BASAL             BASE     200     OCCUR-   AREA
                 PER-    AREA              200      SQ.FT.  RENCES
                 CENT

  6   *ARSP     106.0   .530                 19
  6   *OPPO     259.0   1.29                 44
  1   ATNU      535.6   2.68       89.1      82     191.52    2.34    0.36   91.962
   PER GRASS     50.2   .251                120      81.01    0.68    1.61   38.899
  3   ORHY       12.1   6.05E-02 2.01        46      25.18    0.55    2.08   12.091
  3   POSE        3.7   1.85E-02 .615        28       2.93    0.10    0.79   1.4069
  3   SIHY       26.4   .132     4.39       120      34.07    0.28    1.29   16.359
  3   SPCR        8.0   4.00E-02 1.33        36      18.83    0.52    2.35   9.0416
   PER FORBS      2.40   0.01                21       2.50    0.12    1.04    1.20
  2   ALTE        0.1   T          1.66E-02   1
  2   MUDI        2.3   1.15E-02 .383        21
   ANN FORBS     13.10   0.07                66      19.39    0.29    1.48    9.31
  4   LARE        1.1   T          .183       6
  4   LEDE        0.1   T          1.66E-02   1
  4   MATA       11.0   5.50E-02 1.83        66
  4   PLPA        0.9   T          .150       9
      TOTAL             4.8      100.00             294.420                  141.371

        * NOT COMPUTED IN PERCENT COMPOSITION
        T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS

   OPPO                                                                      39.57
   ARSP                                                                      36.90
                                                          Shrub Prod.        76.47

                                                                Total     217.8410

PRECIPITATION DATA
 RAIN GUAGE NO.        WEST    PASTUR EXCL    JULY    9/74
OCT. 15 TO APR. 15 =  .55
APR. 15 TO JULY 1  = 1.30
JULY 1 TO SEPT. 1  =  .83
SEPT. 1 TO OCT. 15 =  .50
SEASON TOTAL       = 3.18
LONG TERM AVERAGE  = 5.51


   **No utilization
```

```
2006    WEST    PASTUR EXCL    JULY    9/74    OUT    NATIVE

                         NUMBER OF PLOTS
                  COVER = 200, PRODUCTION = 20
                    PLOT SIZE 1 FT. X 10 FT.
PLANT  PLANT    TOTAL   AVE.     PERCENT  ABS.    TOTAL    AVE.     WGT./   LBS
CODE   NAME     TRANS   PER-     COMPO-   PLOT    WGT.     WGT.     UNIT    PER
                BASAL   CENT     SITION   FREQ.   GMS/     /PLOT    BASAL   AC.
                AREA    BASAL             BASE    200      OCCUR-   AREA
                PER-    AREA              200     SQ.FT.   RENCES
                CENT

 6  *ARPE       15.0   7.50E-02              2
 6  *ARSP      165.0   .825                 38
 6  *OPPO      272.4   1.36                 42
 1  ATNU       406.9   2.03       71.8      72    166.17     2.31    0.41    79.790
  PER GRASS    130.7   .653                132    191.00     1.45    1.46    91.712
 3  AGCR        21.7   .108       3.83      42     31.27     0.74    1.44    15.015
 3  BLGR         8.2   4.10E-02 1.45         5      7.33     1.47    0.89    3.5196
 3  BOGR         8.2   4.10E-02 1.45         5      7.33     1.47    0.89    3.5196
 3  ORHY         8.8   4.40E-02 1.55        23      9.96     0.43    1.13    4.7825
 3  POSE         6.7   3.35E-02 1.18        30      3.09     0.10    0.46    1.4837
 3  SIHY        53.2   .266       9.38     132     81.45     0.62    1.53    39.110
 3  SPCR        23.9   .119       4.22      71     50.57     0.71    2.12    24.282
  PER FORBS      0.70   0.00                 2      0.23     0.11    0.33     0.11
 2  ALTE         0.1   T          1.76E-02   1
 2  MUDI         0.6   T          .106       2
  ANN FORBS     28.70   0.14               111     27.90     0.25    0.97    13.40
 4  DEPI         0.7   T          .123       3
 4  LARE         1.9   T          .335      14
 4  LEDE         0.1   T          1.76E-02   1
 4  MATA        22.4   .112       3.95     111
 4  PLPA         3.6   1.80E-02 .635        27
    TOTAL              5.1      100.00           385.300                    185.009

      * NOT COMPUTED IN PERCENT COMPOSITION
      T - TRACE

PRODUCTION ESTIMATES OF SHRUBS AND WOODY MAT FORM PLANTS
```

OPPO	33.92
ARSP	64.99
ARPE	4.15
Shrub Prod.	103.06
Total	288.0690

```
PRECIPITATION DATA
 RAIN GUAGE NO.          WEST    PASTUR EXCL    JULY    9/74
OCT. 15 TO APR. 15 =  .55
APR. 15 TO JULY 1  = 1.30
JULY 1 TO SEPT. 1  =  .83
SEPT. 1 TO OCT. 15 =  .50
SEASON TOTAL       = 3.18
LONG TERM AVERAGE  = 5.51
```

**No utilization

DATE DUE

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arid shrub

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